

Technology-Facilitated Domestic Abuse in the UK: the experiences of victim-survivors and their interactions with services.

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Abstract

This thesis examines women's experiences of technology-facilitated domestic abuse (TFDA) in the UK, a complex form of abuse at the intersection of historic manifestations of domestic abuse and modern-day digital society.

This research draws on three data sets: a survey with 141 women with lived experience of TFDA, in-depth interviews with six women with lived experience of TFDA, and interviews with 16 professionals working in the domestic abuse sector. Participants hail from all four countries across the UK, making this one of the most comprehensive UK-based studies of TFDA to date.

As well as documenting the types of TFDA women are experiencing during and post their relationship, this thesis also considers how TFDA shapes and disrupts women's ability to interact with support services. Being under digital surveillance from an intimate partner limits, or sometimes prevents, women from accessing life-saving support, and consideration must be given to how services can continue to support women safely and effectively in the digital age. Once women are in touch with services, these services must also be equipped to support women in a way which accounts for the myriad dangers and harms caused by TFDA, especially during the delicate process of separation.

This thesis concludes with practical recommendations for victim-survivors, the domestic abuse sector, other services (including the police and social services), the tech sector, and policy makers. It is hoped that the outputs from this research will be informative for those working in the tech sector, and with women impacted by TFDA, so that women can be supported more appropriately in the future.

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1. Introduction

Technology-facilitated domestic abuse is an emergent social issue, which sees historic forms of domestic abuse collide with modern day digital society. In the UK, Deputy Chief Constable Maggie Blyth, Deputy CEO of the College of Policing and National Police Chiefs' Council's lead for violence against women and girls (VAWG), has labelled VAWG as an 'epidemic' (Blyth, 2024), with the National Police Chiefs' Council (2023) identifying domestic abuse and tech enabled VAWG as two of biggest threats facing women in the UK.

The issue of domestic abuse has only entered public discourse relatively recently, with feminist activists bringing women's experiences to the forefront of public consciousness during the 1970s (Mackay, 2015). Prior to this, any recognition of women's experiences at the hands of their male intimate partners had largely been confined to serious physical assaults (Hoyle, 2007), which were deemed beyond the 'reasonable' corrections a man should impose on his wife (Fox, 2002).

Things began to change in the 1970s, when second wave feminists shone a light on the harms patriarchal society inflicted on women (Mackay, 2015). Women were granted financial freedom from their male relatives under the Equal Credit Opportunity Act 1974, and they could request civil protection orders against abusive partners under the Domestic Violence and Matrimonial Proceeding Act 1976. In 1977, women fleeing domestic abuse were recognised for the first time as being homeless, making them eligible, under the Housing (Homeless Persons) Act, for temporary accommodation paid for by the state. Alongside these legislative changes, feminist activists were also organising to provide third sector support to women. The first refuge for women fleeing domestic abuse was opened in 1971 (Refuge, 2017), and the Women's Aid Federation was founded three years later, in 1974 (Women's Aid, 2023).

However, it was not until the 1980s that domestic abuse began to be understood more completely. For the first time, women's experiences of coercive and controlling behaviours were being recognised, alongside the physical violence many were subjected to. Dobash and Dobash (1979) and Schechter (1982) were amongst the first to conceptualised and document women's experiences of coercive control. Later, Professor Evan Stark wrote extensively about coercive control as a gendered phenomenon, explaining how men co-opt and enforce gendered norms and stereotypes within their relationships to establish power and control (Stark, 2007). Despite Stark's efforts, coercive control was not recognised as an offence in England and Wales, until it was eventually criminalised under the Serious Crimes Act 2015. Scotland and Northern Ireland subsequently followed suit, criminalising coercive control under the Domestic Abuse (Scotland) Act 2018 and the Domestic Abuse and Civil Proceedings Act (Northern Ireland) 2021, respectively.

Since then, the most significant shift in the presentation, and our understanding of, domestic abuse has come with the advent and progression of digital technologies. Digital technologies are now ubiquitous, with an increasing number of relationships beginning online (Henry et al, 2020; Todd et al, 2021). The majority of UK adults own an internet-enabled smart phone (Ofcom, 2023), and each year more of us opt to install smart devices at home (techUK, 2023). Whilst higher levels of interconnectivity undoubtably make some aspects of our lives easier (Bailey et al, 2024), it also creates new opportunities for perpetrators of domestic abuse to exert control. The ability to monitor, surveil, threaten and humiliate partners remotely, and on a much broader scale, can leave victims of domestic abuse with nowhere to turn, as their abuser, and the abuse, truly does become omnipresent (Woodlock, 2017).

At present, more information is needed in relation to women's experiences of technology-facilitated domestic abuse in the UK, with majority of existing research and literature coming from Australia (full details are provided in the literature review

in section 2.3.1). Alongside the need for more UK-based research, there have also been international calls for more statistical evidence on technology-facilitated domestic abuse (Henry et al, 2020; Tanczer et al, 2021), and for research which centres the voices of victim-survivors (Markwick et al, 2019). This research contributes to the literature by building on the existing work of UK-based scholars, who have started the process of documenting women's and professionals' experiences of technology-facilitated domestic (Havard and Lefevre, 2020; Pina et al, 2021; Tanczer et al, 2021; Bailey et al, 2024). This research makes an original contribution to knowledge by focusing on the ways TFDA impacts on both victim-survivors and the services which aim to provide support. In doing so, it draws on original quantitative and qualitative datasets, therefore going some way to meeting international calls for evidence.

This thesis documents both women's and professionals' experiences of technology-facilitated domestic abuse and shows the ways that women's interactions with services are shaped by technology. This is an under-researched issue internationally (see Tanczer et al, 2021; Flynn et al, 2022; Slupska and Strohmeyer, 2022; Douglas et al, 2023; Woolley et al, 2023 as few existing examples), despite the significant challenges that women and service providers face. For women who are under digital surveillance from an intimate partner, finding, reaching out to, and remaining in contact with support services can prove incredibly difficult, or even impossible. Without access to proper risk assessment and risk management, women face increased chances of being harmed, or even killed, by their intimate partners or ex-partners (Matthews et al, 2017; Monckton Smith, 2020; Tseng et al, 2021; Stephenson et al, 2023). It is therefore crucial that opportunities to address barriers and improve access to services are identified and acted on forthwith.

This thesis begins with review of the existing literature, exploring criminal and civil law relating to domestic abuse, and the protections afforded to women under the

Human Rights Act 1998. Developments in our understanding of domestic abuse are then traced from early conceptualisations of the 'battered woman' (Walker, 1977), through to modern understandings and interpretations. This includes deeper exploration of the two most significant developments in recent times; the conceptualisation of coercive control, and the emergence of technology-facilitated domestic abuse.

The methodology chapter details how this research was conducted, providing information on the survey with victim-survivors, interviews with victim-survivors, and interviews with professionals working in the domestic abuse sector. This chapter also explores key ethical issues, including the challenges of conducting research on domestic abuse during the Covid-19 pandemic, and working with women impacted by trauma. The chapter also provides reflection on researcher positionality, exploring how my own personal and professional experiences shaped this research.

Chapter four, the first of the findings chapters, documents and interprets statistical data from the survey, conducted with 141 women with lived experience of TFDA. Based upon the technology-facilitated abuse in relationships (TAR) scale (Brown and Hegarty, 2021), the survey gathered data on the types of technology-facilitated domestic abuse women had experienced, considering which forms of abuse were most prevalent, and how their presentation changed pre- and post- separation. The findings within this chapter are split into three categories, relating to the expression and intention of the abuse: *surveillance* over women's daily lives, *threats of harm*, and *reputational damage*. Each of these presentations are understood and conceptualised within a feminist framework, which forms the philosophical basis of this research.

The remaining chapters of the thesis consider how being subjected to technologyfacilitated domestic abuse, particularly digital surveillance, shapes women's interactions with support services, including the domestic abuse sector, the police, and child protection services. Chapters five and six each address a key moment within women's journeys, the first being establishing and maintaining contact with services, and the second being regaining digital autonomy after separation from an abuser.

Chapter five, on establishing contact with services, specifically considers how services' increased reliance on technology for (at least initial) contact has made it more difficult, or even impossible, for women to reach out to services if their partner has control over or monitors their phone or other internet-enabled devices. By analysing how some women were able to establish and maintain contact with services, alongside missed opportunities to engage with women under higher levels of surveillance, recommendations are made to better support victim-survivors and service providers to establish and maintain contact.

In chapter six, different women's needs are considered based on the path they take post separation. For women entering into refuge accommodation, the need to find safety is so all-encompassing that it often requires comprehensive removal from digital and online spaces. As technology is now ubiquitous, this has profound implications for women and children entering refuge. In contrast, those staying in the community, potentially at the same address, may not need to 'disappear' - as their partner is likely to be aware of at least their general whereabouts, if not their exact address. Instead, these women require skilled input to digitally separate themselves from their ex-partner, in a way and at a time which it is safe for them to do so, minimising the risk of harm.

The final findings chapter, chapter seven, comments on three specific areas of professional practice which require improvement, to ensure that women are able to obtain accurate and informed support. The three areas identified through this

research are professional knowledge of technology and technology-facilitated domestic abuse, professionals' awareness of coercive control, and police officers' awareness of relevant legislation. This chapter also considers the role of the 'Domestic Abuse, Stalking and harassment and Honour-based violence' (DASH) risk assessment in modern practice, highlighting the need for this resource to be updated to remain relevant in the digital age.

The discussion and conclusion chapter draws together all the findings from this research, reflecting on how these findings should inform policy and practice for supporting victim-survivors of technology-facilitated domestic abuse in the future. The chapter situates these responses within wider social structures, considering the role of technology design, and the socio-politico-legal positioning of women in the UK. The need for a formal definition and recognition of technology-facilitated domestic abuse in policy and legislation is covered, arguing that proper action and redress cannot occur until this takes place. The thesis concludes with a series of recommendations for victim-survivors, the domestic abuse sector, other agencies (including the police and social services), the technology sector, and policy makers.

Since this project was initially designed in 2018, the landscape surrounding domestic abuse, and technology-facilitated domestic abuse, has changed significantly. Back then, awareness of technology-facilitated domestic abuse was in the early stages, and only a handful of publications were in existence (Dimond et al, 2011; Woodlock, 2017; Tanczer et al, 2018). Since then, interest in, and research on, technology-facilitated domestic abuse has begun to grow, but global production of knowledge and evidence relating to technology-facilitated domestic abuse remains in its infancy.

Researchers and professionals within the field continue to grapple with the rapid pace of digital innovation, with new technologies being released onto the market

almost constantly. Ongoing conversations and further research are needed to address such a complex and dynamic issue, but that does not mean that we can stand still. This thesis contributes original findings, addressing current gaps in knowledge relating to women's experiences of technology-facilitated domestic abuse within the UK. It also serves to identify areas of professional practice requiring improvement, and the tools which require updating, to ensure that women have the best possible access to information and support.

Going forward, it will be necessary for academia, industry, and women with lived experience to work collaboratively to create sustained and meaningful change. As such, this thesis offers itself up as a square in the mosaic, the finished image being a society in which women are empowered with the knowledge, skills and support necessary to protect them from all forms of domestic abuse, including TFDA.

Ultimately, all women deserve to live free from abuse. Until then, work remains to be done.

2. Literature Review

2.1. An overview of domestic abuse in the UK

In the year ending March 2024, police forces in England and Wales logged 1.4 million incidences of domestic abuse, constituting 16% of all police recorded crime (Office for National Statistics, 2024a). Police Scotland recorded 61,934 incidences (Scottish Government, 2024a), and the Police Service of Northern Ireland recorded 31,931 incidences (Police Service of Northern Ireland, 2024). The Crime Survey for England and Wales predicts that 1.6 million women were subjected to domestic abuse in the year ending March 2024 (Office for National Statistics, 2024b), with 1 in 4 women experiencing abuse from an intimate partner during their lifetime (Sardinha et al, 2022). Such figures reveal the pervasive nature of domestic abuse, with millions of women being impacted across the UK.

As well as shedding light on the prevalence of domestic abuse, statistics also reveal domestic abuse to be a highly gendered phenomenon. In England and Wales, women are the victim in 73% of domestic abuse related crimes and 65% of domestic homicides (Office for National Statistics, 2024b). Approximately two women a week are killed by their current or former intimate partner, and a further three women take their own lives because of abuse (Aitken and Munro, 2018; Femicide Census, 2020). In contrast, men make up 91% of those prosecuted for all domestic abuse related crimes (Office for National Statistics, 2024a), and 75% of female domestic homicide victims are killed by their male intimate partner (Office for National Statistics, 2024a). A gendered picture also exists in Scotland and Northern Ireland, where 81% (Scottish Government, 2024a), and 68% (Police Service of Northern Ireland, 2022) of police recorded domestic abuse related crimes involve a female victim and a male perpetrator.

Whilst all four countries in the UK legislate against domestic abuse, Scotland is the only country which refers to the gendered nature of domestic abuse within its core legislation (Lombard and Whiting, 2024). Taking a gendered approach to domestic abuse is important, as violence against women and violence against men have different causes, dynamics, and outcomes, with gender neutral approaches failing all (Dragiewicz, 2009). However, whilst England and Wales's legislation is gender neutral, associated policy documents do recognise violence against women and girls as a specific area of concern. Examples include the Violence Against Women and Girls Strategy (Government, 2021), the Domestic Abuse Plan (Government, 2022), and the Violence Against Women and Girls National Statement of Expectations (Home Office, 2022a). The National Police Chiefs' Council also conducted a strategic threat risk assessment (STRA) on violence against women and girls in 2023, following it's identification by the Home Secretary as a growing national threat. The Home Secretary elevated violence against women and girls to sit alongside serious organised crime and counter terrorism as a Strategic Policing Requirement (National Police Chiefs' Council, 2023), and as a result of the STRA, both domestic abuse and tech enabled violence against women and girls have now been identified as priority areas for policing.

In recognition of the growing need to tackle domestic abuse, England and Wales recently introduced a statutory definition of domestic abuse under the Domestic Abuse Act 2021 (Home Office, 2022b). A statutory definition was brought in to ensure that all statutory and non-statutory bodies are working to the same definition, and it is hoped that a statutory definition will also provide the public with a reference point when identifying their own and others' experiences.

The statutory definition introduced under the Domestic Abuse Act 2021 is split into two parts, with the first section clarifying the relational parameters within which domestic abuse can occur. As was the case with the previous, non-statutory

definition, the Domestic Abuse Act 2021 specifies that all individuals must be over the age of 16 for behaviours to constitute domestic abuse. Where one or both parties are under the age of 16, this will be treated as child abuse. The new statutory guidance also builds on the previous guidance, clarifying that "personally connected" includes those who have terminated an engagement or civil partnership agreement and those who have shared parental responsibility for a child, as well as those who are or have been in an intimate relationship or are family members.

In relation to conduct, part two of the statutory definition states that:

- (3) Behaviour is "abusive" if it consists of any of the following—
- (a) physical or sexual abuse;
- (b) violent or threatening behaviour;
- (c) controlling or coercive behaviour;
- (d) economic abuse;
- (e) psychological, emotional, or other abuse.

The range of abuses included under the new, statutory definition shows a growing awareness of the myriad of harms women experience in these relationships. Points a, b, c and e were included under the previous, non-statutory definition of domestic abuse (Home Office, 2013). However, point d, economic abuse, is a new addition, with the previous, non-statutory definition referring to financial abuse instead. The term 'economic abuse' encapsulates a broader range of abuses, going further than the previous definition to recognise how perpetrators of abuse prevent their partners from 'obtaining goods or services' (Domestic Abuse Act, 2021), on top of controlling their access to financial resources (Home Office, 2013). Economic abuse can involve sabotaging a partner's training, education, or employment, damaging their property, or preventing the fulfilment of personal needs (Home Office, 2022b), leaving women

financially dependent on their partner, in debt, and/or living in poverty (Sharp-Jeffs, 2022).

Whilst these legislative updates demonstrate a growing awareness that domestic abuse does not always involve physical violence, government statistics suggest a similar paradigm shift has not successfully occurred within policing. In the year ending March 2024, the domestic abuse related offence most commonly recorded in England and Wales was violence against the person (Office for National Statistics, 2024a). In Scotland it was common assault (Scottish Government, 2024a), and in Northern Ireland it was violence with or without injury (Police Service of Northern Ireland, 2024). Each of these offences relate to discrete incidents of physical violence, rather than patterns of behaviour which more commonly characterise domestic abuse. This reflects the incident-based approach upon which UK policing is predicated, with policing struggling to adapt to new 'course of conduct' offences (Wiener, 2017; Stark and Hester, 2019; Barlow and Walklate, 2022; Myhill et al, 2022).

In comparison to single incident offences, detection rates for crimes amounting to a course of conduct, such as coercive control, remain low. Police forces in England and Wales logged just 45,310 cases of coercive control in the year ending March 2024 (Office for National Statistics, 2024a), despite the fact that coercive control is believed to be present in the majority of abusive intimate partner relationships (Stark, 2007; Lever and Eckstein, 2020). Comparative figures on the number of cases recorded in Scotland and Northern Ireland were not available, in part due to the short amount of time coercive control has been a criminal offence in each country. Scotland only criminalised coercive control in 2018 under the Domestic Abuse (Scotland) Act, and Northern Ireland in 2021 under the Domestic Abuse and Civil Proceedings Act (Northern Ireland). Low detection rates mean that men who use coercive and controlling behaviours against their intimate partner are allowed to continue without intervention, despite the fact these relationships are known to be particularly high risk,

with abuse often escalating in severity over time (Monckton Smith, 2020). Better detection rates would improve outcomes for women, reducing the harms suffered.

Whilst detection of coercive control remains low, statistics suggest that identification of intimate partner stalking and harassment, which also relates to a course of conduct, is improving. In the year ending March 2024, 37% of domestic abuse related crimes recorded by police forces in England and Wales involved stalking or harassment. Within this category, there were stalking (45%), harassment (21%), and malicious communications (17%) offences (Office for National Statistics, 2024a). In Northern Ireland, stalking and harassment were the second most recorded domestic abuse related crimes after violence with or without injury (Police Service of Northern Ireland, 2024). Detection of domestic abuse related stalking and harassment had grown considerably in Northern Ireland, with 20.5% more cases being recorded in the year ending June 2022, when compared with the previous year (Police Service of Northern Ireland, 2022), though this had fallen again by 2024 (Police Service of Northern Ireland, 2024).

Whilst each of these police recorded statistics tell us something important about the nature and scale of domestic abuse in the UK, they are also likely to be an undercount. It is estimated that just 13% of victims inform the police of their abuse, with most women (71%) preferring to disclose to someone in their personal network, such as a family member or a friend (Office for National Statistics, 2023a). Many women will also disclose to a professional from another statutory or non-statutory organisation, including healthcare workers, social services, and specialist domestic abuse services. Third sector support can be particularly valuable for women, with research by the Domestic Abuse Commissioner for England and Wales (2021) finding that 67% of women felt safer, and 73% of women felt more in control once they had engaged with specialist domestic abuse services. The position of specialist domestic abuse services is explored further in section 2.3.3.

2.1.1. Criminal law and domestic abuse

Domestic abuse has never been a standalone offence under UK criminal law (Crown Prosecution Service, 2022). Instead, prosecution of abusive men has depended on the presence of composite offences, typically criminal damage, common assault, actual bodily harm, and grievous bodily harm (Westmarland, 2015). This left women with limited options if their partner was not physically abusive towards them.

Sexual abuse within marriage was not officially recognised until 1991, when the House of Lords upheld a legal ruling that Section 1 of the Sexual Offences (Amendment) Act 1976 applied to married couples. Prior to this, married men had routinely been exempted from prosecution when their wives alleged rape, owing to a widely held belief that women consented to any and all sexual activity upon entering into marriage (Palmer, 1997). Rape within marriage is now recognised under the Sexual Offences Act (2003).

In 1997 the Protection from Harassment Act was introduced, offering protection to those who were no longer in a relationship with their abusive partner but who were experiencing ongoing abuse. The Act consists of two summary-only offences, harassment (Section 2) and stalking (Section 2A), which are tried in the magistrates' court, and two either-way offences, harassment causing fear of violence (Section 4), and stalking causing fear of violence (Section 4A), which can be tried in the magistrates' or the Crown Court, depending on severity. For actions to qualify as harassment or stalking, two or more incidents must have occurred, demonstrating that there is a 'course of conduct' (Crown Prosecution Service, 2023). Upon conviction or acquittal, a restraining order can be put in place to prevent further harm to the victim. Breaching a restraining order is a criminal offence, with those convicted facing a sentence of between six-months and five-year in prison. More recently,

stalking protection orders have also been introduced under the Stalking and Protection Act 2019, providing an alternative measure to a restraining order. Stalking Protection Orders are explored further in the civil law section.

In 2015, the Serious Crime Act criminalised coercive and controlling behaviour in England and Wales. This legislation supports police officers to make an arrest regardless of whether a physical assault has occurred, and those convicted face a sentence of up to five years in prison (Home Office, 2015). Scotland and Northern Ireland also subsequently criminalised coercive control under the Domestic Abuse (Scotland) Act 2018 and the Domestic Abuse and Civil Proceedings Act (Northern Ireland) 2021. In 2015, the distribution of intimate images or video footage without consent and with the intention of causing distress (image-based sexual abuse) was criminalised in England and Wales under Section 33 of the Criminal Justice and Courts Act 2015, carrying a sentence of up to two years in prison. Again, Scotland and Northern Ireland brought in similar legislation under the Abusive Behaviour and Sexual Harm (Scotland) Act 2016 and the Justice Act (Northern Ireland) 2016.

More recently, in England and Wales, the Domestic Abuse Bill received royal assent and was signed into law (Home Office, 2021a), bringing with it several changes. The Domestic Abuse Act updated the Criminal Justice and Courts Act 2015, making threats to distribute intimate images or video footage without consent a criminal offence. This offence carries a sentence of up to two years in prison, in line with the sentence for sharing intimate materials. Legislation relating to coercive control was also amended to recognise post separation abuse, and non-fatal strangulation, a specific risk factor for domestic homicide (Femicide Census, 2020; Lowik et al, 2022), was made an independent offence. Further offences relating to the creation of intimate images, including those which are Al generated, have been tabled for inclusion within the Data (Use and Access) Bill, and the Crime and Policing Bill (Ministry of Justice, 2025). In summary, women now have significantly more

protection under the law than ever before, though there is still a long way to go to ensure these crimes are detected and prosecuted.

2.1.2. Civil law and domestic abuse

Protections for those subjected to domestic abuse also exist under civil law. Civil orders are intended to be preventative, aiming to stop acts of abuse from occurring, rather than waiting for acts to occur before enforcing criminal sanctions (Connelly and Cavanagh, 2007).

Since 1996, women have been eligible to apply for a non-molestation order under Section 42 of the Family Law Act, which prohibits the person it is served against from threatening violence, harassing, or damaging the property of the applicant or any relevant children, or from coming within a certain radius of the applicant's home or their children's school. Alongside this, an occupation order can be served under Section 33 and 35-38 of the Family Law Act, to exclude the perpetrator from the property in which the applicant is residing (Rights of Women, 2023). Breaching a non-molestation order is a criminal offence under Section 12 of the Domestic Violence Crime and Victims Act 2004. This offence can be tried either-way and carries a maximum sentence of up to five years in prison. Breaching an occupation order can also be a criminal offence, if attached to a power of arrest. If a power of arrest is attached, breaching an order can carry a maximum sentence of two years in prison.

Although women can still apply for a non-molestation order and/or an occupation order against their ex-partner, the introduction of Domestic Violence Protection Notices and Domestic Violence Protections Orders under the Crime and Security Act 2010 provided an alternative to those seeking to end abuse (Crown Prosecution Service, 2022; Home Office, 2022c). In place from 2014, Domestic Violence Protection Notices gave police officers the power to remove perpetrators from the

home, and to prevent them from having contact with the victim, for up to 48 hours. During those 48 hours, the police could apply to the magistrates' court for a Domestic Violence Protection Order, extending conditions for up to 28 days. The intention behind Domestic Violence Protection Notices and Domestic Violence Protections Orders was to provide the victim with time and space away from their abuser, when they could engage with support services and consider their next steps. Breaching a Domestic Violence Protection Order is a civil contempt of court, punishable with a fine or up to two months in prison.

Domestic Violence Protection Notices and Domestic Violence Protection Orders have now been replaced by Domestic Abuse Protection Notices and Domestic Abuse Protection Orders under the Domestic Abuse Act 2021, though these are yet to be rolled out nationally (Crown Prosecution Service, 2022; Home Office, 2021b and 2022). As with the Domestic Violence Protection Notice, a Domestic Abuse Protection Notice will be issued by the police, allowing them to remove the perpetrator from the home for up to 48 hours. The police will then apply to the magistrates' court for a Domestic Abuse Protection Order, which can be used to prevent the perpetrator from approaching the victims' home or other specified locations, as well as placing a requirement on perpetrators to notify the police of their address. The duration of Domestic Abuse Protection Orders will be flexible, allowing extensions past 28 days, and courts will be provided with the powers to electronically monitor those subjected to an order to ensure compliance with the terms. Additionally, victims and third parties will now be allowed to apply directly to the courts for a Domestic Abuse Protection Order, meaning that women can seek protection even if they are not ready to, or do not want to, engage with the police. Breaching a Domestic Abuse Protection Order will be a criminal offence, carrying a sentence of up to five years in prison.

Lastly, stalking protection orders can be granted under the Stalking Protection Act 2019, via a police application to the magistrate's court (Crown Prosecution Service,

2022). Stalking protection orders can be given regardless of whether the charging threshold for criminal proceedings has been met, with interim stalking protection orders offering the opportunity for early intervention. Orders are imposed for a fixed period of at least two years and can be used to prevent the abuser from contacting the victim, being in the vicinity of the victim, or using digital technologies to stalk or surveil the victim. Breaching a stalking protection order is an either way offence and can carry a maximum sentence of up to five years in prison.

2.1.3. The Human Rights Act 1998

Alongside criminal and civil law, those subjected to domestic abuse are also protected under the Human Rights Act 1998 (Equality and Human Rights Commission, 2018; Crown Prosecution Service, 2019). The Human Rights Act is made up of absolute, limited, and qualified rights, each offering different levels of protection (Equality and Human Rights Commission, 2016). Absolute rights are the most comprehensive, requiring strict adherence at all times. Limited rights must be observed by the state, but restrictions are permitted under the European Convention on Human Rights. Finally, qualified rights allow for the state to restrict the rights of the individual in order to protect the rights of the many, or to protect the interests of the state.

With regards to domestic abuse, relevant articles of the Human Rights Act include Article 2, Article 3, and Article 8. Article 2 (Right to Life), a limited right, requires the state to take steps to preserve life and to intervene where someone poses a risk to the life of another. Article 3 (Right to Freedom from Torture and Inhumane or Degrading Treatment), an absolute right, places a duty on the state to protect those at risk of degradation, inhumane treatment, or torture from another person. Article 8 (Right to a Private and Family Life), a qualified right, stipulates that the state or

authority can intervene in specific circumstances to prevent a crime from occurring, to protect an individual, or to protect the public more broadly (Equality and Human Rights Commission, 2018). Each of these rights place an obligation on the state to intervene in cases of domestic abuse.

Whilst women subjected to domestic abuse are also protected under the UN Declaration on the Elimination of Violence Against Women, the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), and the Istanbul Convention, this protection in indirect, and women cannot bring cases under these Declarations and Conventions.

2.2. Historic narratives around violence at home

Historically, the abuse of women by their male intimate partners has often been ignored, minimised, or even condoned (DeKeseredy, 2011). Women were largely confined within the private sphere (Orme, 2003; Evans and Chamberlain, 2015), and society was structured so that women remained socially and economically dependent on men throughout their lives, leaving them vulnerable to multiple abuses (Stark, 2007). Christian conceptions of marriage situated women as their husband's subordinates, and as the head of the family, men were expected to reprimand their wives both verbally and physically in order to uphold the household's moral standards (Fox, 2002). As such, any recognition of the harms men caused to women were almost entirely confined to incidences of extreme physical violence (Hoyle, 2007), which overstepped that which could be reasonably deemed "moderate correction" (Fox, 2002). This conceptualisation eventually led to the adoption of the term 'battered women' (Walker, 1977), which referred to women who suffered violence within the home.

It was not until the 1960s and 1970s that women's experiences of abuse meaningfully entered public discourse. Second wave feminism elicited a deeper understanding of sex-based inequalities, including the impacts that patriarchal violence had on women's lives (Mackay, 2015). Activists coined the phrase 'the personal is political', which spoke to how women's personal struggles were directly caused by their social and political positioning (Orme, 2003; Evans and Chamberlain, 2015). Collectively, women began to demand social and legal redress for the harms caused by men, as well as by patriarchal politics and policies.

Campaigning by feminist women's groups gained traction during the 1970s, bolstered by the foundation of the Women's Aid Federation in 1974 (Women's Aid, 2023). The Equal Credit Opportunity Act 1974 allowed women to hold a credit card in their own name for the first time, lessening their economic dependence on men. In 1976 the Labour government introduced the Domestic Violence and Matrimonial Proceeding Act, giving both married and cohabiting women the right to seek a civil protection order against their abusive partner (MacKay, 2015). In 1977, the Housing (Homeless Persons) Act formally recognised women fleeing domestic violence as homeless for the first time, making them eligible for temporary accommodation funded by the state (though it is worth noting that by this time, the Chiswick Women's Liberation Group had already been housing women fleeing domestic violence for six years, having opened their first refuge in 1971) (Refuge, 2017). Women's social, political and economic standing was slowly improving, increasing their ability to escape abuse.

During the 1960s and 70s, academia was also turning its attention to the exploration of women's lives, including their experiences of male violence. Feminist scholars began to critique the androcentrism of their disciplines, with existing knowledge largely based on the study of men, by other men (Campbell and Wasco, 2000; Brooks, 2011). The emergence of victimology as a field of study created novel

opportunities for researchers to centre their work on women's lives, with domestic violence becoming an area of specific interest (Hoyle, 2007; Rock, 2007). One of the earliest and most well-known feminist works on domestic violence was Dobash and Dobash's book 'Violence Against Wives: A Case Against Patriarchy', published in 1979. In the following years, Elizabeth Stanko went on to publish two groundbreaking papers documenting women's experiences of male violence (1985), and their experiences of domestic violence, both in the UK and the US (1986).

By the 1980s, feminist scholars were beginning to recognise that their work lacked diversity, with existing studies largely focussed on white, middle class women's experiences of domestic violence (MacKay, 2015). In 1989, Kimberlé Crenshaw lay the foundations for more inclusive research when she developed her theory of intersectionality. Professor Crenshaw's original work on intersectionality spoke to the ways sexism and racism converged in the lives of Black women (1989, 1991), resulting in specific and unique forms of harm. Since then, the concept of intersectionality has been expanded to consider how gender interacts with other aspects of women's identities, shaping their experiences of abuse. To date, research has examined the intersection of gender with several other social categories, including race and ethnicity (Gill, 2004; Sundari et al, 2018; Magill, 2023), disability (Hague et al, 2011; Thiara et al, 2011; McCarthy et al, 2017), sexuality (Donovan and Hester, 2015), and social class (Wilcox, 2000).

Alongside the creation of intersectionality as a critical theory, the 1980s also saw coercive control being recognised for the first time, initially by Dobash and Dobash (1979), and later by Schechter (1982). This represented a profound shift away from an historic focus on individual incidents of physical violence, towards a greater understanding of the patterns of gendered abuse which characterised coercive control. For the first time, scholars were able to identify the ways that macro-social inequalities which disadvantaged or constrained women were transformed, by

perpetrators, into micro-social inequalities within the home (Sweet, 2019). Professor Evan Stark (2007) is often credited with having had some of the most significant influence over our understanding of coercive control, with his conceptualisation of coercive control being the one which most policies and legislation are based upon (Douglas et al, 2019; Barlow and Walklate, 2022). Several academics have since built on Stark's work, including Dr Charlotte Barlow and Professor Sandra Walklate (Barlow et al, 2020; Barlow and Walklate, 2022; Barlow, 2023)

2.2.1. Conceptualising coercive control

According to Evan Stark (2007), coercive control constitutes a pervasive pattern of abusive tactics used by men to reinstate their gendered privilege, which has been eroded by women's increasing social, economic, political and legal enfranchisement. By enforcing traditional gendered expectations and norms within the relationship, men can trap, manipulate and control their female partner in a manner which ultimately denies them equal personhood.

Stark (2007) conceptualised coercive control as an 'invisible cage' which shares multiple similarities with other hostage-taking scenarios. Perpetrators of coercive control will regularly induce sleep deprivation, force confessions, and employ tactics designed to humiliate their partner, such as controlling or denying access to the toilet (Stark, 2007). However, coercive control is also markedly different from other hostage situations in that the perpetrator and the captive are known to one another, with the tactics deployed being highly gendered in nature. Intimate knowledge of their female partner enables abusers to tailor tactics in a way which is rarely possible in stranger situations. Men who coercively control will often seek to recreate traditional gender roles within the home, positioning themselves as the main breadwinner and pressuring or persuading their partner to give up work. They will oversee and define

their female partner's performance of gendered labour within the home, including cooking, cleaning, and the provision of childcare. Victims are subjected to high levels of surveillance and minute prescription of daily activities, the intensity of which eventually leads women to self-police and spontaneously comply with their abuser (Pitman, 2017). The inclusion of double binds, or diametrically opposed messages, means that women can never be right, and they are left second guessing their actions at every turn.

Contrary to historic beliefs that physical assaults define an abusive relationship, physical violence is not always present within coercively controlling relationships. In many cases, acts of physical violence will be less common than other forms of abuse, and the perpetrator may feel that the threat of violence is sufficient to ensure their victim's compliance (Stark, 2007; Pitman, 2017). It is commonplace for perpetrators to interweave fear and distortion throughout the abuse, instilling a sense of helplessness and confusion in their victim. Termed 'gaslighting', after the 1938 play 'Gaslight' by Patrick Hamilton, perpetrators can create a sense of 'unreality' by inducing doubt around what is real and what is not. Examples of gaslighting can include minimising or denying acts of abuse, convincing a partner that they are paranoid or that they are imaging things, or simply manipulating a partner into believing they are the cause of the abuser's behaviour (Sweet, 2019). Psychological abuses can be much more insidious than physical assaults, as the victim, who has lost her trust in her own perceptions, is less likely to recognise the behaviour as abusive, or to take steps to report their abuser or leave the relationship.

It is relatively easy for perpetrators to establish and maintain a regime of coercive control, as this form of abuse draws on pre-existing stereotypes around gender and relationships (Sweet, 2019). In many relationships, domestic and family responsibilities are still gendered, with women taking on more housework and childcare related tasks (Sevilla and Smith, 2020; Allen and Stevenson, 2023). Where

women fail to perform as a 'good' wife or mother they face being socially punished, whereas men are more likely to be praised for engaging with parenting and household chores (Gaunt, 2013). It is still more common for women to withdraw from the job market to care for children, with just 5% of eligible men taking shared parental leave (Department for Business and Trade, 2023). Where coercive control is present, this leaves women particularly vulnerable to financial and economic abuse, as they become reliant on their partner for income (Sharp-Jeffs, 2022). Men who use coercive control are further assisted by government policies, such as the two-child benefit cap, which, along with the rising costs of childcare, may make it more financially advantageous for one parent to provide full-time childcare (Andersen, 2023). Because perpetrators can hide their attempts to control their partner behind 'legitimate' financial needs, it can become difficult for women to recognise when 'family' decisions have tipped over into coercive control (Stark, 2007).

Being subjected to coercive control can make it profoundly difficult for women to escape an abusive relationship. Abuses are tailored to cause maximum effect, and repeated 'boundary violations' erode women's sense of self, trapping them in the relationship (Pitman, 2017). Being physically and/or psychologically controlled over a prolonged period breaks down an individual's capacity to make independent choices, removing their ability to leave and to function independently. When an individual has been repeatedly told what to wear, what to eat, what to do and when to do it, and their focus has become the management of their partner's mood for the sake of survival, it can become almost impossible to make personal decisions again. Women may also be prevented from leaving due to the practical impacts of coercive control. When women are expected to take on most or all of the household and family tasks, they lack time and opportunity to make plans to end the relationship (Stark, 2007). If they do not have independent access to money, and/or their partner has created debt in their name, they may also lack the means to rent or buy property, or to meet their

other basic needs (Sharp-Jeffs, 2022). Collectively, this is known as a reduced 'space for action' (Kelly, 2003 as cited in Harris and Woodlock, 2019), whereby women are trapped by their limited choices. This links back to Stark's (2007) conceptualisation of coercive control as a 'liberty crime', during which women lose their 'free and equal personhood'.

2.3. Contemporary harms in a connected society

Since the millennium, society has undergone a profound shift. The most recent available statistics show that 97% of adults have access to a mobile phone, with 94% of these being smart phones, and 92% of households are connected to the internet (Ofcom, 2023). Our homes are also becoming 'smart', with 80% of households reporting at least one smart home device (techUK, 2023). The product households are most likely to own is a smart TV, however other technologies are also gaining in popularity. Smart doorbells have seen the most significant increase, with 19% of households now using one, compared with just 2% in 2018. Smart lighting and smart thermostats have also grown in popularity, with 16% and 18% of households reporting ownership, compared with just 7% and 10% in 2018.

The ubiquity of technology throughout our lives has led some to identify it as critical infrastructure, with access to the internet fast becoming a human rights issue (Suzor et al, 2018 as cited in Dragiewicz et al, 2019). Should this become the case, denied or restricted access to the internet because of technology-facilitated abuse could constitute a human rights abuse. The interconnectedness of digital and smart technologies impacts us right from the beginning of our relationships, with individuals frequently learning about their new partners via dating profiles and social media accounts (Henry et al, 2020; Todd et al, 2021). This digital marketing of the self means that we come to know a lot more about our potential partners, a lot sooner than we

might have done in a pre-digital society (Maher et al, 2017). Access to this level of information allows perpetrators to identify aspects of women's lives and identities which they can use to manipulate them, and the normalisation of digital sharing makes persuading women to provide access to their accounts and devices much simpler (Bailey et al, 2024). This enables perpetrators to establish control within their relationships relatively quickly, and to subsequently restrict or revoke women's access to their technology.

To situate this research, a review of existing literature was conducted, which revealed the majority of research on TFDA has thus far taken place in Australia. Five databases were identified and searched: Google Scholar, EBSCOhost (Social Work Abstracts, SocINDEX), ProQuest (ASSIA, Sociological Abstracts, and Social Services Abstracts), Taylor and Francis online, and SCIE. The search terms used for each database were technology-facilitated domestic abuse, digital coercive control, tech abuse, domestic abuse, domestic violence, technology, and digital. All of the suggested papers were reviewed via the titles and abstracts to assess for relevance, and a total of 119 journal articles and book chapters were included in the final list. Of these, 52 papers and book chapters originated from Australia, 28 from the UK, and 22 from the United States. The remaining papers were from other countries, including Canada, Finland, and Sweden.

Whilst fewer papers were identified from the US than the UK in this literature search, researchers from the US were the first to document TFDA. Dimond et al began researching TFDA in 2011, documenting American women's experiences of being digitally stalked and harassed during their stay in a domestic violence shelter. Freed et al (2017 and 2018) have since published a series of papers on their research with 39 victim-survivors and 50 professionals working within American Family Justice Centres. Through their research, they have been able to categorise digital methods of abuse into access-based attacks (for example taking ownership of or compromising

accounts and devices), and non-access based attacks (such as harassment, threats, and exposure of private information), highlighting the fact that perpetrators do not need to be technically skilled to weaponise digital technologies, as the majority will use low-skilled and easy-access methods to abuse their partner.

Around the same time, scholars in Australia were also beginning to publish work on TFDA. Delanie Woodlock was amongst the first to document Australian women's experiences via her SmartSafe project (2017). This project surveyed 46 victim-survivors and 152 professionals from the Victorian domestic abuse sector, investigating how smartphones and social media were being used to stalk and harass women. Woodlock's work was swiftly followed, with Molly Dragiewicz (Dragiewicz et al, 2018; Dragiewicz et al, 2019; Dragiewicz et al, 2021), Bridget Harris (Harris, 2018; Harris and Woodlock, 2019 and 2021), and Asher Flynn (et al, 2022 and 2024) amongst the most prolific scholars within the field. Australia is currently one of the leading authorities on TFDA, with multiple studies emanating from the country.

In comparison to United States and Australia, TFDA has garnered relatively little interest in the UK. University College London's Tech and Gender Research Lab group remains the only dedicated research centre investigating the relationship between domestic abuse and networked devices, also known as the Internet of Things (IoT) (UCL, 2024), with the majority of UK-based studies originating from time limited, stand-alone projects (Havard and Lefevre, 2020; Pina et al, 2021; Todd et al, 2021; Bailey et al, 2024). Information generated by members of the Tech and Gender Research Lab group has expanded our knowledge of TFDA, particularly in relation to smart home technologies (Tanczer et al 2018; Lopez-Neira et al, 2019), which had previously remained hidden and vastly under-researched.

Before exploring the existing literature in more depth, it is important to note there is ongoing debate regarding the terminology which best describes domestic abuse

involving digital technologies. At present, there is no single phrase or definition which is consistently used to describe the phenomenon (Harris, 2018; Douglas et al, 2019; Henry et al, 2020; Tanczer et al, 2021). In Australia the terms 'technology-facilitated coercive control' or 'digital coercive control' are preferred (Dragiewicz et al, 2018 and 2019; Harris and Woodlock, 2019; Woodlock et al, 2020), whereas in the UK, 'technology-facilitated domestic abuse' is the more commonly used term (Afrouz, 2023). Here, I have adopted the phrase 'technology-facilitated domestic abuse' to be consistent with current UK literature, and to increase the likelihood of outputs being found in UK-based keyword searches.

2.3.1. What the literature review revealed about technology-facilitated domestic abuse

The international literature review revealed that there are myriad ways that perpetrators of domestic abuse can use technology to abuse their partner, with the proliferation of technology enabling perpetrators to enact harms in ever more diverse and invasive ways. Where technology has been used to facilitate the abuse, abuse is more likely to continue for longer periods of time and is likely to permeate more areas of the victim's life (Woodlock et al, 2020). Technology also presents perpetrators with more opportunities to abuse as the abuse is less geographically and temporally contained, increasing the harms caused to victim-survivors (Henry et al, 2020). The embedding of surveillance technologies within our internet connected devices, alongside increased levels of communication between devices, means that perpetrators can now gain comprehensive access to information about their partner with minimal technical skill. Perpetrators are able to infiltrate every aspect of their partner's life, with technology providing access to their partners internet searches and communications with others (Baddam, 2017; Freed et al, 2018; Messing et al, 2020).

Essentially, technology enables perpetrators to gain access to their partners thoughts.

As well as increasing the depth of personal information perpetrators have access to, developments in technology have removed any barriers relating to time and geography. Thanks to remote connectivity, distance is no longer a barrier to perpetration, with perpetrators able to track, surveil, and abuse their partner from any location (Harris and Woodlock, 2019; Al-Alosi, 2020). Similarly, distance from the perpetrator is no longer a protective factor for women, with abusers often requiring their partner be constantly available via technology (Leitão, 2021). Because of this, women may no longer have the time and space to connect with others in a way which enables them to restore their positive self-image (Stark, 2007; Harris, 2018), something which could have supported them to envisage a life away from abuse. Without this support, women are more likely to spend longer periods of time in an abusive relationship (Woodlock et al, 2020), further entrenching the impacts of the abuse.

As a result, TFDA has been conceptualised by Harris (2018) as a 'spaceless' form of abuse, as it does not require the physical proximity of either the perpetrator or the victim. The level of access and knowledge which perpetrators can obtain allows them to appear 'omnipresent' (Woodlock, 2017; Woodlock et al, 2020; Yardley, 2020), in a way which was simply not possible in pre-digital societies. This is reminiscent of Betham's panopticon (1787, as cited in Bentham and Bozovic, 1995), in which prisoners were watched by a guard in a central tower, with no idea when or if they were being observed. This led prisoners to self-police at all times, similarly to the way victims of abuse self-regulate their own behaviour, complying with the demands of their partner without fault (Foucault, 1995 as cited in Barter and Koulu, 2021). As previously discussed in section 2.2.1., this uncertainty around when they are being observed, and the subsequent self-policing, reduces women's 'space for action'

(Kelly, 2003 as cited in Harris and Woodlock, 2019), leaving them trapped in harmful situations.

TFDA is often interpreted as a specialist form of abuse requiring high levels of technical competency in the perpetrator, however this is rarely the case. More often, perpetrators will focus on readily available technologies which require lower levels of technical skill (Freed et al, 2018; Dragiewicz et al, 2019; Tanczer et al, 2021), such as mobile phones and social networking sites (Woodlock, 2017; Havard and Lefevre, 2020; Woodlock et al, 2020). Mobile phones and social networking sites allow for both 'access' and 'non-access-based' attacks (Freed et al, 2017 and 2018), which means perpetrators can carry out abusive acts with or without compromising the device or accounts of their partner (see chapter 4 for examples). Essentially, perpetrators can adjust their abuse based on their technical knowledge and skill, shaping the abuse to fit their desired aims.

Though they require little technical know-how, non-accessed based attacks can still cause significant amounts of harm to victim-survivors. Tactics may include infiltrating a partner's social network, for example by connecting digitally with women's family and friends (Douglas et al, 2019). This low skill option circumnavigates any need to compromise a partner's personal accounts, whilst enabling the perpetrator to befriend or abuse their partner's social networks as required (Woodlock, 2017; Freed et al, 2018; Douglas et al, 2019; Havard and Lefevre, 2020; Woodlock et al, 2020). Such tactics enable perpetrators to isolate women from those who may have helped them, whether this is because their social network now thinks their abuser is a 'good man', or because their family and friends are too scared to engage with the couple owing to the perpetrator's abuse. Mobile phones and social networking sites have made it particularly easy for perpetrators to put pressure on women's support systems (Woodlock, 2017; Lever and Eckstein, 2020; Messing et al, 2020; Leitão, 2021), disrupting them or, in some cases, causing them to disintegrate.

Another way that perpetrators can abuse their partners without having direct access to their partner's accounts or devices is through location tracking, also known as cyberstalking. One of the ways perpetrators can track their partners location is through their social media posts, including via location tags on images. Couples are likely to have overlaps in their social networks (Douglas et al, 2019), and therefore when women are tagged in photographs, or when a shared contact interacts with content which is attached to her account, that content can find its way onto the perpetrator's feed. Perpetrators can then access this content and attempt to establish their partner's whereabouts. If women are not technically confident or informed, they may not be aware that this is even possible, or indeed happening (Tanczer et al, 2021). The networked nature of the abuse means perpetrators can continue to proxy stalk their victims post separation (Woodlock, 2017; Douglas et al, 2019; Havard and Lefevre, 2020; Bailey et al, 2024), when women may have deleted or blocked their partner from their social media accounts, believing themselves to be safe.

For those with more technical know-how, access based attacks are also an option. There are multiple ways abusers can gain access to women's accounts and devices for the purpose of perpetrating abuse (Freed et al, 2018; Dragiewicz et al, 2019; Havard and Lefevre, 2020; Leitão, 2021). At the most basic level, perpetrators may be successful in convincing their partner to share their passwords voluntarily, as a mark of their commitment to the relationship. This is more common at the start of a relationship, when women may not realise that their new partner is abusive. If their partner refuses to hand over their passwords willingly, perpetrators may also be successful in guessing them, owing to the intimate nature of the relationship. This is particularly likely if women use insecure passwords, such as their pet's name or their child's birthday. If women do not give up their passwords voluntarily and perpetrators cannot guess them, they may resort to using tactics of coercion or force to procure the information. Once they have established access, perpetrators may change the

password to one they can remember, or they may use their own number for two factor authentication (Woodlock, 2017; Freed et al, 2018), preventing women from regaining private access to their devices or accounts.

Once perpetrators have gained access to women's accounts or devices, they can monitor multiple aspects of their partner's life, including who they communicate with, where they go, what they search for online, and where they spend their money (Douglas et al, 2019; Havard and Lefevre, 2020; Leitão, 2021). Perpetrators may take over women's accounts, contacting their friends and family as if they were their partner. By assuming their partner's identity, perpetrators can gain access to private information and/or drive a wedge between their partner and her loved ones, once again isolating women from their personal networks (Woodlock, 2017; Freed et al, 2018; Dragiewicz et al, 2019).

Another way perpetrators can ensure their partner never has private access to their device is through 'gifting' technology, either as a present or a hand-me-down (Dragiewicz et al, 2019). 'Gifting' provides perpetrators with ample opportunity to pair the device with their own, or to download software which compromises the user's privacy (Douglas et al, 2019; Freed et al, 2019; Yardley, 2020; Leitão, 2021). This can include spyware or stalkerware, software which is used to covertly obtain information from another device, or keylogging software, which is used to monitor the keys pressed on a separate device. By installing spyware, stalkerware, or keylogging software, perpetrators can access the devices content, see who women are communicating with, or track their partner's location remotely (Baddam, 2017; Snook et al, 2017; Tanczer et al, 2018). This then enables perpetrators to control where their partner goes and who they talk to, by engaging in emotional, psychological, or physical abuse (Lever and Eckstein, 2020, Childs et al, 2024).

If perpetrators cannot gain access to women's social media accounts or mobile phones, they may choose to track their partner's location via a tracking device instead. Some of these devices have been designed for the express purpose of tracking a partner, however others, such as Apple's AirTag, have been designed for legitimate purposes, and are co-opted by perpetrators as part of the abuse (Chatterjee et al, 2018). Such devices are small and often hard to spot and can therefore be secreted within women's handbags or placed in or about their cars (Baddam, 2017; Woodlock, 2017; Douglas et al, 2019; Al-Alosi, 2020). Alternatively, devices might be placed amongst children's belongings, or sewn into their toys (Dragiewicz et al, 2019; Douglas et al, 2019; Yardley, 2020; Nikupeteri et al, 2021). The capabilities afforded by tracking devices, namely, to remotely view and trace the location of an intimate partner, are a key example of how developments in technology have enabled perpetrators to enact old harms in new ways.

As well as monitoring women's movements outside of the home, perpetrators are increasingly able to surveil and gaslight their partner within the home, with smart home technologies providing a novel vector of abuse. Whilst technology is often castigated for pushing families apart, technology has also brought families closer together via an erosion of individual boundaries and data privacy (Castells, 2007; Goulden, 2017). Many smart home technologies are both interconnected and internet-connected, designed based on the assumption that the family is a safe space (Tanczer et al, 2018; Lopez-Neira et al, 2019; Goulden, 2019). Families are likely to share devices, and communally owned devices will communicate with family members personal devices (Lopez-Neira et al, 2019; Tanczer et al, 2021). All of these factors make smart home technologies a danger for women subjected to TFDA, enabling their partner to access more information than ever before.

There are many smart home devices which perpetrators of abuse can co-opt to cause harm to their intimate partner, including smart speakers, smart locks, smart

thermostats and lighting and indoor and outdoor cameras (Snook et al, 2017; Tanczer et al, 2018; Lopez-Neira et al, 2019; Stephenson et al, 2023). Through these technologies, perpetrators can listen in to conversations, view live footage, record footage, lock women in or out of the house, and turn the heating or lighting on or off at random to control, confuse, or intimidate them (Snook et al, 2017; Tanczer et al, 2018; Lopez-Neira et al, 2019; Stephenson et al, 2023). Whilst abuse via the smart home is currently less common than some other forms of TFDA, these forms of abuse are expected to become of growing concern as more households adopt these technologies (Tanczer et al, 2021).

Alongside opportunities to surveil, track, and gaslight an intimate partner, the proliferation of digital technologies, specifically social networking platforms, has also greatly enhanced perpetrators abilities to publicly shame and humiliate women (Freed et al, 2018; Harris, 2018; Douglas et al, 2019; Markwick et al, 2019; Lever and Eckstein, 2020). Where perpetrators would previously only have been able to spread private or false information about women within their local communities, their reach beyond this would have been limited. Now, with social networking sites allowing perpetrators to reach hundreds, thousands, or even millions of people with ease, women's reputations can be damaged on a much broader scale. At the same time, technology and social networking has also made it much simpler for perpetrators to target content at those who mean the most to women. Many of us have multiple social contacts on the same networking sites or saved within the same contacts list, including family, friends, and work colleagues (Dragiewicz et al, 2018; Leitão, 2021). If perpetrators can gain access to these contacts, possibly via a public friends list, they can send private or confidential information to women's parents, siblings, friends, and even their boss, at the touch of a button. The internet also remembers (Dragiewicz et al, 2019; Markwick et al, 2019; Henry et al, 2020), meaning that harmful and/or untrue information can remain online and in circulation indefinitely.

When perpetrators distribute private information about their intimate partner, it will often be gendered in nature. Perpetrators may attempt to construct their partner as an 'hysterical woman', sharing information about her mental health, or coming up with factitious diagnoses (Freed et al, 2018). Technology makes it relatively easy for perpetrators to back up their claims of instability by creating false digital 'evidence', perhaps by filming their partner reacting to having been abused (Maher et al, 2017). Such tactics are known as 'DARVO', meaning to deny, attack, and reverse victim and offender, with perpetrators constructing a new narrative in which they are the abused party (Harsey and Freyd, 2020). DARVO tactics can have far reaching consequences for women, staining their identity and damaging their relationships with others (Nikupeteri et al, 2021).

Similarly, perpetrators may publicly shame or humiliate their partner by casting doubt on her ability as a mother (Nikupeteri et al, 2021). Perpetrators may imply or explicitly state that their partner is an abuser and that the children are at risk of harm (Lever and Eckstein, 2020), or they may share explicit content such as partially or fully nude images, insinuating that their partner is 'indecent' and therefore incapable of parenting their child to an acceptable standard (Nikupeteri et al, 2021). Technology enables perpetrators to falsify evidence of their claims here too, either by recording footage of women reacting to being abused or by creating deepfake images or content (Henry et al, 2020).

In extreme cases, perpetrators may be successful in convincing professional bodies that their partner is the unsafe parent, potentially influencing child custody or safeguarding decisions (McCarthy, 2017). Regardless of the outcome, women are forced to live with the suggestion that they are not a good mother, and with content remaining online, it is possible that their children may one day view falsified evidence and question whether their mother was abusive. They may also question whether their mother is safe to be around any subsequent grandchildren, leaving women with

stained identities which persist for generations. Essentially, public or semi-public forums such as social networking sites have given perpetrators the opportunity to manipulate, or even to construct, women's personal identities on a significant and long-term basis (Dragiewicz et al, 2019; Markwick et al, 2019; Lever and Eckstein, 2020).

Another way perpetrators may seek to humiliate and control their partner is through the distribution of sexualised or intimate visual content (Woodlock, 2017; Freed et al, 2018; Douglas et al, 2019; Al-Alosi, 2020). This content may be in the form of nude images or video recordings of the couple engaging in sexual activity. Women may be aware that these images or videos exist and may have consented to their creation, but in other cases, these images and videos may have been created covertly without their knowledge and consent (Woodlock, 2017; Freed et al, 2018; Douglas et al, 2019). If they cannot obtain or record genuine materials, perpetrators may instead create deepfakes; content which has been digitally manipulated to imply that it contains the individual in question (Henry et al, 2020). In all cases, where women have not consented to material being shared, distribution is likely to result in feelings of humiliation, anxiety, and depression, and women may also be afraid for their personal safety (Henry et al, 2020; Lever and Eckstein, 2020). This is especially likely if perpetrators have shared content on pornography websites or other internet forums (Henry et al, 2020), or if perpetrators have also 'doxxed' their partner by sharing personal details like their home address, contact information, and place of work (Dragiewicz et al, 2018 and 2019; Douglas et al, 2019). Some studies have reported victims receiving explicit phone calls and messages from anonymous men after their partner encouraged others to approach them for sexual services, or even to sexually assault or rape them (Dragiewicz et al, 2018; Leitão, 2021; Freed et al, 2018).

As with all forms of domestic abuse, gender plays a significant role in perpetration of TFDA. Interest in technology has historically been coded as masculine (Barter and Koulu, 2021), with technological competency fast becoming a benchmark of modern masculinity (Oudshoorn et al, 2004). In mixed sex households, men are still more likely to take responsibility for household internet access and to be involved in the management of devices (Douglas et al, 2019). This may include setting up family devices or women's devices for them, which alongside gifting of devices (Dragiewicz et al, 2019), provides perpetrators with ample opportunity to pair women's devices with their own, or to install software which compromises the privacy of the device (Tanczer et al, 2021).

Gendered differences between men's and women's confidence with technology also means that male perpetrators may be able to convince their female partner that they possess higher levels of technical skill than they do, or that a device has more advanced or sophisticated capabilities than in reality (Douglas et al, 2019; Tanczer et al, 2021). This may result in women policing their own behaviour unnecessarily, thinking that their partner or even the authorities can access data and information that they cannot (Christie and Wright, 2020; Tanczer et al, 2021). Alternatively, women may not be aware their devices have been compromised or that their partner is engaging with technology maliciously (Harris and Woodlock, 2019; Havard and Lefevre, 2020), and even if women do have suspicions, perpetrators may be successful in gaslighting their partner into believing that they are paranoid, or that they are making unfair or unfounded accusations (Dragiewicz et al, 2018; Lopez-Neira et al, 2019; Leitão, 2021; Tanczer et al, 2021). Without hard 'evidence' or any certainty around their partners wrongdoing, it can be incredibly difficult for women to find the strength to leave.

Alongside discrepancies between their partner's perceived and actual technical skill and ability, women may also experience confusion when they are trying to identify

whether certain behaviours are in fact abusive (Harris, 2018; Lever and Eckstein, 2020; Messing et al, 2020). Taken out of context, several of the behaviours encapsulated within TFDA are normalised or even encouraged across society and within the media. Many of us regularly consume reality television shows which centre around covert surveillance (Wood and Webster, 2009), and films and television shows like 'Fifty Shades of Grey' and the Netflix series 'You' have been criticised for romanticising abuse, including digital stalking (Harkin et al, 2020 as cited in Yardley, 2020). Young people who consume such content may adopt this as a blueprint for their own relationships, heightening the risk of them perpetrating or being subjected to abuse (Dragiewicz et al, 2018; Markwick et al, 2019; Stonard, 2019).

Alongside popular culture, the adoption of digital technologies to monitor an intimate partner may also have been influenced by surveillance cultures within the UK. The UK population is amongst the most surveilled in the world (Aradau and McCluskey, 2022), and academics have long drawn links between the way the state monitors the general population for deviation from what it deems acceptable behaviour, and the way private individuals use digital technologies to monitor one other (Wood and Webster, 2009; Mason and Magnet, 2012; Dardis et al, 2020; Yardley, 2020). This analogy could be extended to men's use of digital technologies to monitor their partner for signs of deviation from accepted gender norms, a hallmark of coercive control (Stark, 2007). Each of these examples, especially when they are combined, demonstrate how the boundaries between what is acceptable, and what is abusive, can become unclear for women.

This concludes the international literature review, with the remainder of the thesis focussing on the UK specifically.

2.3.2. The scale of technology-facilitated domestic abuse

In 2014, a survey by Women's Aid (as cited in Laxton, 2014) found that 45% of respondents had experienced 'online abuse' within their relationship. Six years later, Refuge reported that 72% of those accessing their services had been subjected to TFDA (Christie and Wright, 2020). Shortly after, the global coronavirus pandemic hit, and the numbers of women seeking support for domestic abuse rose exponentially. The National Domestic Abuse Helpline reported a 65% increase in calls and 700% increase in website visits between April and June 2020, coinciding with the first national lockdown. The numbers of women asking for help with TFDA also grew, with Refuge recording a 97% increase in complex cases requiring specialist input between April 2020 and May 2021 (Refuge, 2021). The Cyber Helpline, a specialist cyber security charity, reported a 420% increase in calls relating to tech abuse during the first year of the pandemic, compared to the year prior (Pina et al, 2021). More recently, research by Refuge (2021) revealed that one in six women had been subjected to TFDA by a current or ex-partner, equating to approximately two million women across the UK. Co-option of technology by those who perpetrate domestic abuse is now believed to be a feature in the majority of domestic abuse cases (Maher et al, 2017; Dragiewicz et al, 2019; Tanczer et al, 2021).

It is anticipated that TFDA will continue to grow, with the number of internet-connected devices worldwide forecast to rise 12% year on year, going from 27 billion connected devices in 2017 to an anticipated 125 billion by the year 2030 (Lopez-Neira et al, 2019). As technology becomes both more sophisticated and more embedded within our daily lives, TFDA will become easier to perpetrate and increasingly complex to address. This will lead to additional challenges and barriers for victim-survivors who are attempting to flee abusive relationships, as well as for those trying to support them.

2.3.3. Technology-facilitated domestic abuse and the domestic abuse sector

The domestic abuse sector is well established in the UK, with the Women's Aid Federation having been founded in 1974 (Women's Aid, 2023). Specialist domestic abuse services provide a range of support options to women, from outreach and community programmes through to emergency refuge accommodation, with additional support available for high-risk clients in the form of Independent Domestic Violence Advocates (Women's Aid, 2024). Refuges offer tailored packages of support to women and children staying with them, providing the practical and emotional help needed to process the abuse and rebuild their lives. Support from specialist services can play a significant part in women's journeys, with research from the Domestic Abuse Commissioner for England and Wales (2021) finding that 67% of women felt safer, and 73% of women felt more in control once they had engaged with specialist domestic abuse services.

Despite their clear benefits, domestic abuse services have faced significant challenges under consecutive Conservative governments, experiencing continuous threats to their existence. Although 72% of community-based services and 77% of refuge services are commissioned by their local authority, funding is limited and rarely covers all the services' running costs (Women's Aid, 2024a). Many services are reliant on charitable funds to continue providing support, but with sources of income usually being awarded for between one and three years, services' financial situations remain precarious (Domestic Abuse Commissioner, 2021). Inadequate and insecure funding has resulted in many services reducing provision, with limited support now available for women with complex physical or mental health needs, drug or alcohol dependencies, or with no recourse to public funds (Domestic Abuse Commissioner for England and Wales, 2021; Women's Aid, 2024a). Alongside these challenges, there is also an increasing expectation that services will provide gender-neutral

support, with this often being a condition of funding (Women's Aid, 2024). This has resulted in the loss of the radical activist feminist groundings which characterised the original services of the 1970s (Yardley, 2020) and does a disservice to both male and female victim-survivors, who generally have different experiences and needs (Dragiewicz, 2009). In this case, equal does not necessarily mean equitable.

Funding cuts and the subsequent impact on service availability means that many services are having to turn women away. In 2023, Welsh refuge services declined 45% of referrals, mainly because they could not meet the client's needs. In the same year, providers in England rejected 61% of referrals for refuge accommodation, primarily because they lacked bed space to take women and children in (Office for National Statistics, 2023b). In England, there is currently a 22% shortfall in the number of bed spaces needed to accommodate women fleeing abuse, in accordance with the minimum number of beds recommended by the Council of Europe (Women's Aid, 2024a). Insufficient refuge provision leaves women and children vulnerable to significant harm, with separation being the point at which femicide and familicide are most likely to occur (McFarlane et al, 2002; Dobash and Dobash, 2015; Matthews et al, 2017; Monckton Smith, 2020). Though community-based services were able to accept roughly half of referrals (Office for National Statistics, 2023b), understaffed and under-resourced services means that women often face long waiting lists for support.

Alongside these complex financial challenges, the proliferation of digital technologies has caused profound operative challenges for the domestic abuse sector. For women under sustained digital surveillance, opportunities to access support from specialist services is significantly compromised (Baddam, 2017; Woodlock et al, 2020; Leitão, 2021). In most cases, services require that women make initial contact either by telephone, email, or webchat (for example the National Domestic Abuse Helpline (Refuge, 2024a)). However, for women subjected to TFDA,

there may not be a safe device from which they can contact these services, with attempts to call, email or engage with services online being discoverable. This leaves those needing to escape unable to digitally search for or contact services without escalating their risk of serious harm or homicide.

For women who cannot reach out to services via technology, the natural alterative may appear to be the provision of in-person options. Yet for those under digital surveillance, attending an office or drop-in centre may be equally impossible (Yardley, 2020; Tseng et al, 2021). Tracking software or devices mean that visits to service providers are recorded, and smart home devices means that professionals visiting the home may be recoded too. At present, there are no studies in the UK specifically focussed on the ways women and services providers navigate the challenges of establishing and maintaining contact in the digital age.

As well as preventing women from reaching out to services during their relationship and/or at the point they are looking to leave, opportunities for perpetrators to surveil and track their partner cause additional issues post separation. Through digital technologies, perpetrators have greater access to information about their partners location, support networks, and daily routine than they would have had in an analogue society (Laxton, 2014; Al-Alosi, 2017; Baddam, 2017; Harris and Woodlock, 2019, Childs et al, 2024). This information allows perpetrators to continue to track, or to make educated guesses about, their partners location post separation, including when they have moved to a new address or into refuge accommodation. This has made supporting women considerably more challenging for services (Woodlock et al, 2020). The option for women to enter into refuge accommodation has been available in the UK for at least 50 years (Coy et al, 2011; Bowstead, 2015), but with rapid advances in location-tracking technologies, relocating women to a supposedly secret address will no longer be sufficient in and of itself. Now, services must also find a way to make women digitally untraceable, which is increasingly difficult in a digitally

saturated world. Once again, there has been a dearth of research on the ways women and services are attempting to address this issue.

Finally, once women exit an abusive relationship, they will often need support to 'digitally decouple' from their ex-partner (Leitão, 2021, pp.230). This can be a complex process requiring specialist knowledge and skill, accounting for the dynamics of domestic abuse and the ubiquity of social networks (Matthews et al, 2017; Bailey et al, 2024). For example, removing a perpetrator's access to their victim at the wrong moment could put women at greater risk, as the perpetrator escalates their abuse to preserve their power and control (Woodlock, 2017; Freed et al, 2017; Lever and Eckstein, 2020; Yardley, 2020). Similarly, blocking an abusive partner may be insufficient if somebody else, such as a friend or family member, is passing information back to them (Al-Alosi, 2017; Leitão, 2021). Professionals supporting women to 'digitally decouple' must therefore understand how perpetrators use technology to harm their partners, and how they react to being challenged, to support women to safely regain digital autonomy.

Despite the clear need for dynamic and comprehensive assessment and advice around TFDA, the few studies which have been completed with professionals show that both statutory and voluntary services are struggling to provide guidance to women even when their issues relate to non-access based, low-skilled behaviours such as harassment (Freed et al, 2018; Tanczer et al, 2018). Technology is advancing rapidly (Maher et al, 2017; Henry et al, 2020), and those working in the domestic abuse sector report concerns that they are 'falling behind' perpetrators, who are more technically savvy and/or motivated to find ways to harm their partners (Lopez-Neira et al, 2019; Tanczer et al, 2021). This sense of being ill equipped is made worse by outdated resources, which were not designed for the digital age (Leitão, 2021; Tanczer et al, 2021; Todd et al, 2021). Specifically, the 'Domestic Abuse, Stalking and harassment and Honour-based violence' (DASH) risk assessment, used by the

majority of professionals interacting with victim-survivors of abuse (Richards, 2024), was designed in 2009, when technology was less developed and widely embedded.

When resources are not up to date, this places responsibility on individual professionals to research and understand TFDA, and to know how to ask women about TFDA. As already stated, those working with victim-survivors are not confident working with TFDA (Freed et al, 2018; Lopez-Neira et al, 2019; Tanczer et al, 2021), and women will not always disclose that they are experiencing TFDA unless directly asked (Messing et al, 2020). It is therefore crucial that professionals are adequately trained to make enquires about TFDA, and that resources are sufficiently developed to support practice. If staff are not comfortable enough to adapt the current DASH risk assessment to include questions about technology themselves, then it is likely that women will be mis-graded into lower risk categories, and that identifiable risks to women be missed. As such, either the DASH risk assessment must be updated, or the new Domestic Abuse Risk Assessment (DARA), trialled by front line police offers (College of Policing, 2022), must be rolled out across all support services (see section 8.4 for further details). Up until now, there has been limited research done with services exploring how they navigate risk assessment when it comes to TFDA, or how they go on to support women once TFDA has been identified (see Tanczer et al, 2021 and Douglas et al, 2023 for some examples).

Training is also important because international research has shown that, at present, professionals regularly interpret TFDA as being 'less serious' than contact offences, owing to the remote nature of the abuse (Harris and Woodlock, 2019). This is untrue, with stalking and coercive and controlling behaviours, often facilitated by digital technologies, acting as high-risk indicators for serious harm and homicide (Monckton Smith, 2020; Todd et al, 2021; Tseng et al, 2021). When professionals are unclear about the ways perpetrators use technologies to harm their partners, or the steps which can be taken to block or prevent further abuse, this can result in advice

which lacks nuance, with women being told to replace their devices and/or remove themselves from digital and online spaces (Harris and Woodlock, 2019; Woodlock et al, 2020). If women resist, they may be accused of being "unwilling to help themselves" (Millman et al, 2019, pp.101), resulting in them being left to risk assess and safety plan for themselves.

Leaving women to assess their own risk and create their own safety plans represents an impossible task, as most women do not have access to the information needed to accurately assess risk, and they are not able to view their situations objectively owing to their own personal connection. Lack of professional support also places a burden on women to become 'digital and domestic abuse experts' (Dragiewicz et al, 2019; Harris and Woodlock, 2019), during a time of high stress. If women fail, the costs can be great; women risk losing access to their support networks (Maher et al, 2017; Harris and Woodlock, 2019), their freedom (Stark, 2007), and even their lives (Monckton Smith, 2020).

At the start of this project, the need for specialist research, training, and resources on TFDA were beginning to be identified and addressed. Refuge, one of the largest domestic abuse providers in the UK, had recently developed a new 'Tech Abuse Team', which later became the 'Technology-Facilitated Abuse and Economic Empowerment Team' (Refuge, 2024b). First created in 2017, the 'Tech Abuse Team' was established in response to growing demand for digital support in cases of domestic abuse. Alongside supporting victim-survivors, the team now additionally provides training to front line professionals, and consultancy to the tech sector. However, research has highlighted the ongoing need for training and for swift and comprehensive action on TFDA, with at least one Domestic Homicide Review having identified intercepted communications between a victim and support services as a direct factor in a woman's murder (Todd et al, 2021). Further research is currently being conducted at University College London on the links between TFDA and

domestic homicide (Reaver, 2023). Steps to improve awareness and response to TFDA amongst various agencies is urgently needed, to prevent a range of harms and domestic homicides of women in the UK.

2.3.4. Contributions made by this project

Despite its growing presence (Pina et al, 2021; Refuge, 2021), TFDA is still not widely recognised or acknowledged in the UK. The new statutory definition of domestic abuse does not reference technology or online harms (Domestic Abuse Act 2021), and the Online Safety Act 2023 mentions some domestic abuse related offences, including controlling and coercive behaviour and image-based abuse, but could go further to protect women from TFDA. The National Police Chiefs' Council's (2023) Strategic Threat Risk Assessment on online violence against women and girls (VAWG), which this research contributed to, remains one of the only official documents to directly reference TFDA. There is also no consensus, in academia or beyond, on how TFDA should be defined, or the terminology which should be used to discuss these issues (Harris, 2018; Douglas et al, 2019; Henry et al, 2020; Tanczer et al, 2021). This lack of formal recognition for TFDA affects professionals' and service providers' abilities to recognise and respond to TFDA, including limiting the funds available to put interventions in place. It is hoped that the outputs from this research will help raise the profile of TFDA in the UK, with the research already having been used to train over 150 professionals across Nottinghamshire, Lincolnshire and South Yorkshire, as well as informing a campaign by South Yorkshire Police (2024), and featuring on Sky News (Franks, 2024). There has been further interest from South Yorkshire Police, Yorkshire and Humberside Cyber Crime Unit, and the National Police Chiefs' Council on an ongoing basis.

To secure formal recognition, more data on TFDA in the UK is needed. At present, there is a lack of empirical data on TFDA globally (Douglas et al, 2019; Dragiewicz et al, 2019), with very little data available on the UK context specifically (Lopez-Neira et al, 2019; Havard and Lefevre, 2020). Internationally, there have been calls for more quantitative data on TFDA (Henry et al, 2020; Tanczer et al, 2021), as well as for more research which draws directly on the survivor voice (Markwick et al, 2019). This research contributes both statistical data on women's experiences of TFDA, and qualitative data from victim-survivors and professionals working in the domestic abuse sector, helping to address knowledge and evidential gaps pertaining to TFDA in the UK. Women deserve to be heard, and understanding their experiences will enable us to design better interventions.

This research also addresses a gap in the literature relating to women's interactions with services, when they are or have been subjected to TFDA. At present, there is a limited amount of research available on this issue (see Tanczer et al, 2021 and Douglas et al, 2023 for some examples). As such, this research makes an additional contribution to knowledge by analysing women's interactions with services both from their own, and professionals, perspectives, identifying potential missed opportunities to engage with women, and aspects of professional practice which require improvement. This information must be used to improve the support available to women in the future.

3. Methodology

As discussed in the literature review, this project was designed to help fill knowledge and evidential gaps relating to TFDA. Previous research has highlighted the need for more empirical data on TFDA (Douglas et al, 2019; Dragiewicz et al, 2019; Havard and Lefevre, 2020), particularly quantitative data (Tanczer et al, 2021), and data which highlights the voices of those with lived experience (Markwick et al, 2019; Brown and Hegarty, 2021). At present, there is also a lack of information on the ways that TFDA shapes the ways women access services, particularly when they are under digital surveillance from an intimate partner (Tanczer et al, 2021). Establishing contact and supporting women to leave have been selected as two specific points of interest, as some of the most crucial, yet highest risk moments in women's journeys (Dobash and Dobash, 2015; Matthews et al, 2017; Monckton Smith, 2020). Ultimately, this research sought to understand the challenges and barriers faced by women and by service providers, as well as the steps that each were taking to navigate around these, with the aim of improving access to services for those subjected to TFDA.

To fulfil the requirements of the project, mixed methods research was undertaken with professionals working in the domestic abuse sector and with women with lived experience. The findings provide quantitative data on the scale and scope of technology-facilitated abuse experienced by women during and post their relationship, as well as qualitative information on how TFDA begins, progresses and (sometimes) ceases in the lives of victim-survivors. The findings also shed light on the challenges faced by women and professionals when women are trying to leave safely, owing to the presence of TFDA. The study has been conceptualised within a feminist theoretical framework, helping to illuminate the gendered nature of the abuse, it's impacts, and any possible solutions.

3.1. Research Aims and Objectives

The aims of this research were to document the experiences of women subjected to technology-facilitated domestic abuse by their intimate partners, and to understand how being under digital surveillance from an intimate partner impacts on women's ability to interact with support services. The research also aimed to understand the challenges faced by the domestic abuse sector in providing support to these women.

As such, the research objectives were as follows:

- 1. To evaluate the existing literature on technology-facilitated domestic abuse.
- To gather data on the types of technology-facilitated domestic abuse women experience during and post their relationship.
- 3. To investigate how being subjected to technology-facilitated domestic abuse shapes women's interactions with support services.
- 4. To evaluate the knowledge base of professional groups who work with women subjected to technology-facilitated domestic abuse, including the extent to which professionals are able to make safe and informed decisions and recommendations.
- 5. To draw on feminist theories of domestic abuse and science and technology studies to inform the research and the recommendations made.

3.2. Research paradigm

Philosophically, this research is aligned with feminist standpoint epistemology. Feminist standpoint epistemology starts from the position that an unbodied way of experiencing the world is impossible, and that any belief this is possible represents the historical privileging of the masculine viewpoint as the 'absolute' (Beauvoir, 1949). Women have never been permitted to be disembodied in any context, instead repeatedly being made conscious of their physicality by a society in which they are

routinely sexualised and demarcated as 'other' (Stanley and Wise, 1993; Vera-Gray, 2016). Many women will experience a blurring of the boundaries around their own bodily existence and sovereignty, including through systemic male intrusions (Vera-Gray, 2016). This results in women consciously changing their behaviour through the performance of 'safety work', but also reaches a deeper, unconscious level where an adaptive way of inhabiting the world becomes embodied, naturalised, and habitual. Since the development of technology, the boundaries of our bodily existence have shifted, with our digital devices becoming an extension of the self (Belk, 2013). This concept holds specific relevance when seeking to understand TFDA, as women are routinely subject to digital intrusions by their (usually male) intimate partners. These 'boundary violations' (Pitman, 2017) result in women performing digital safety work, both in self-preservation and in an attempt to find spaces of resistance. Sometimes women's safety work leads them to remove themselves from digital and online spaces (Matthews et al, 2017; Maher et al, 2019), mirroring the way women physically reduce themselves in an attempt to avoid unwanted intrusions from men. Essentially, the digital space has become an extension of the physical space, in which women must adapt themselves to be safe.

Influenced by Marxism and the analysis of class oppression, feminist standpoint posits that women occupy a more informed position from which they can observe and understand issues of sex-based oppression, and that they possess less interest in maintaining the unequal and oppressive social conditions which they exist under (Stanley and Wise, 1993; Campbell and Wasco, 2000; Harding, 2004; Brooks, 2011). Feminist standpoint therefore recognises women's situated knowledge as 'legitimate knowledge' (Haraway, 1988), countering the dominant culture which routinely constructs women as unreliable witnesses to their own lived experiences. This epistemology aligns with Fricker's (2007) concept of 'epistemic justice', which

advocates for the rights of marginalised or oppressed groups, in this case female victim-survivors of domestic abuse, to be recognised in their capacity as 'knowers'.

Feminist standpoint recognises that multiple truths can exist concurrently (Campbell and Wasco, 2000). As such, it allows for both an acceptance of women's personal narratives, and the collectivisation of women's voices to illuminate patterns of injustice and possible solutions. Here, each of the women who participated in the research, both personally and professionally, had their own perceptions of what 'counted' as technology-facilitated abuse, interpreting and making sense of their experiences through the lens of their social positioning and life experiences. Each of the women had situated their experiences within the continuum of male violence that all women are subjected to throughout their lives (Kelly, 1988), ranging from street harassment to domestic and sexual assault. Kelly's work helps us to understand that women sometimes struggle to negotiate the boundaries between 'normal' and 'deviant' (or abusive) behaviours, and this is no less true for TFDA, where the boundaries between 'healthy', 'unhealthy' and 'abusive' behaviours are continuously being contested and redefined (Maher et al, 2017; Harris, 2018; Lever and Eckstein, 2020; Messing et al, 2020). Though all of the women who participated had had different experiences, this does not make any of their interpretations, experiences, or reactions less valid. Rather, feminist standpoint allows us to synthesis commonalities across women's stories without disregarding any content which may stand in isolation.

This thesis presents women's personal and professional accounts of TFDA at the point at which they participated. It is entirely possible they will go on to recognise other forms of TFDA to which they were subjected as they encounter further opportunities to reflect. Awareness of the impacts TFDA has had on them may also continue to unfold over time, as they are exposed to new life events. However, this does not diminish the contributions they have made now, which are legitimate

reflections on their experiences to date. By sharing their lived and professional experiences, these women have collectively helped us to understand how women experience TFDA in the UK, and the barriers that women face when they attempt to seek support from services. By providing us with this information, they have allowed us to consider how service provision might be shaped and built upon, so that women can be better supported in making informed decisions about their relationships, including whether to end them safely now or in the future.

3.3. Theoretical approaches

Theoretically, this research draws on feminist approaches to understanding domestic abuse and the work of feminist science and technology studies scholars. By combining these approaches, we can begin to conceptualise technology-facilitated domestic abuse within a gendered framework, making sense of the ways gender and technology interact to shape perpetration, response, and outcomes. Both feminist theory on domestic abuse and feminist science and technology studies will be explored in turn below.

3.3.1. Feminist theory on domestic abuse

Feminist researchers have been developing theory on domestic abuse for several decades (Dobash and Dobash, 1979; Schechter, 1982; Stark, 2007; Hester, 2013; Westmarland, 2015; Barlow and Walklate, 2022). For these scholars, gendered power relations are a core component of domestic abuse, with perpetration centring on men's ability to gain and maintain power over their partner by controlling them physically, sexually, financially, and/or emotionally. Hegemonic masculinities serve to reassure men that they are justified in their desires to control women, reaffirming their belief that women should be subservient to their fathers and later their husbands

(Dobash et al, 1992; Stark, 2007; Levell and Hester, 2023). Men who ascribe to such narratives will invoke their physical, social, cultural, and economic capital and their technology knowledge to control and abuse their female partner (Dobash et al, 1992; Hester et al, 2010). Should women attempt to end their male partner's control over them, perhaps through breaking off a relationship, these same narratives which legitimised the abuse will also legitimise any attempts to reassert power, including by violent means (Dobash et al, 1992).

If we conceptualise domestic abuse as being an expression of gendered power and control, then we must understand domestic abuse to be a highly gendered phenomenon. It is well documented that the majority of domestic abuse perpetrators are male, and that the majority of victims are female (Dobash et al, 1992; Walby and Allen, 2004; Office for National Statistics, 2024a and b). This is not to say that female perpetrators and male victims do not exist, but that domestic abuse perpetrated by women is less common and typically persists for a shorter period of time. Female perpetrators are less likely to be physically violent than their male counterparts, and their abuse does not usually create the same climate of fear or sense of being controlled that men's abuse of women does (Hester, 2013). This is due to the relative position of men and women within society, with women being socialised in a manner which discourages violence and domination, and with men less likely to face structural barriers which may trap them in such a relationship (Dragiewicz, 2009).

Links are additionally increasingly being drawn between neoliberalism, misogyny, patriarchal family values, and domestic abuse (Yardley, 2020). Threats to men's domination via women's lessening economic dependence on them, alongside the rise in neoliberal individualism, competitiveness, and the right of ownership, have combined to perpetuate some men's belief that they have a right to assert ownership over 'their' women. As such, men who perpetrate domestic abuse could simply be understood as displaying behaviours at the more extreme of the scale, in a neoliberal

society which encourages, normalises, and condones gendered violence and abuses (Laxton, 2014; Yardley, 2020). Yardley's work is central to helping us to understand men's perpetration of TFDA, creating much needed links between neoliberal political economies, digital technologies, and traditional concepts of domestic abuse.

3.3.2. Feminist Science and Technology Studies

Design of new technologies has always been a traditionally masculine pursuit (McNeil and Roberts, 2011; Weber, 2011), with the majority of sector employees being male. In 2023, just 26% of the UK's tech industry workforce was female (Owusu Addae, 2023). In the modern commercial sector, the homogenous nature of design teams has led to what Akrich (1995, as cited in Oudshoorn et al, 2004) termed "Imethodology", whereby male designers conceptualise users in their own image. This results in products which are developed to meet the needs, wants, and desires of men, with women being rendered 'other' (Beauvoir 1989 as cited in Code, 2007). Technologies designed by men have consistently been aligned with the motivation to control and cause harm, most obviously seen in the development of technologies for war and conflict (McNeil and Roberts, 2011; Weber, 2011). As time has gone on, technologies have been developed which covertly or overtly support or enable the abuse of women (Chatterjee et al, 2018; Yardley, 2020), and in this sense, women are no longer just the 'other', but the target. As explained by Adams (1996, p162), "cyberspace cannot escape the social construction of gender because it was constructed by gendered individuals, and because gendered individuals access it in ways that reinforce the subjugation of women."

Whilst technology can be used to cause harm to women, the majority of technology is not designed with this explicit intention. Most technologies used by perpetrators of TFDA have been designed for legitimate purposes, falling under what

Chaterjee et al (2018) term 'dual use' technologies. Dual-use apps and devices typically allow the owner remote access to another person's data, either through monitoring device content, tracking device location, or activating an embedded camera or microphone. These apps and devices are easy to (mis)use (Brookfield et al, 2025), and if perpetrators do need help, they can often find online forums or blogs, or even approach customer services for support (Bellini et al, 2020). Such apps and devices are particularly dangerous because their legitimate status means that antispyware and anti-stalkerware tools are unlikely to flag them as being of concern.

Whilst abusive outcomes may not be intentional, the tech industry's failure to protect women through their lack of inbuilt security measures, alongside slow responses to reports of abuse (Slupska et al, 2021), unjustly places the burden of performing digital 'safety work' on women (Vera-Gray, 2016; Harris and Woodlock, 2019). Whilst all adopters of digital technologies must make choices "between privacy and communication" (Castells, 2007, pp.257), for women subjected to TFDA, this choice is much higher stakes, with women being forced to choose between communicating with their loved ones or protecting themselves from physical and emotional harm. Often, women are left to identify digital safety strategies on their own, and in many cases, women are simply pushed offline (Maher et al, 2019). This expectation that women should take responsibility for their own digital safety is embedded within wider neoliberal discourse, in which individuals are expected to protect themselves from crime and victimisation (Yardley, 2020). However, the ubiquity of technology and online spaces means that preventing women's access to technology, either through perpetration or failure to protect, could in fact be construed as what Stark (2007) termed a 'liberty crime' (an offence against women's rights to free and equal citizenship).

Being socially privileged by gender means that male designers are epistemologically disadvantaged and lack the situated expertise of women when it

comes to intimate threats from technology (Campbell, 2009). Most companies operate under the presumption that the home is a safe place, and that threat emanates externally, drawing on an idealised narrative of the home as a sanctuary (Yardley, 2020; Goulden, 2019 and 2021; Slupska et al 2021). As demonstrated by this thesis, this is not always true. Because of the ongoing gender imbalance in tech design teams, oversights occur during the design processes for new technologies, meaning that intimate threats are neither modelled for nor addressed (Oudshoorn et al, 2004; Chatterjee et al, 2018; Slupska et al, 2021).

On top of this oversight, the ability for designers to benefit financially from new products means that there is now an economic interest in the continuation of male violence against women and girls. The production of technologies like stalkerware and spyware are economically advantageous, and their continued production is therefore protected by the neoliberal economy. In this sense, we are seeing the "commodification and marketisation of abuse" (Harkin et al, 2020 as cited in Yardley, 2020, pp.1482), with the development of apps and devices which can be used to control and inflict harm accruing profit. A recent example which hit the headlines was the sale of 'spy hooks' by delivery giant Amazon, which enabled the covert recording of women and children in their bathroom or bedrooms (BBC, 2024). Within a context of supply and demand, it is unlikely that we will see much spontaneous interest in addressing violence against women and girls in digital spaces (Yardley, 2020).

Despite these challenges, household and personal technologies are not a failed project. If we understand technology to be a construct shaped by social need and cultural usage (Wajcman, 2006), then it could arguably be reimagined to meet women's needs (Haraway, 1988). Science and Technology Studies is epistemologically linked with feminist scholarship through shared interests in social justice, and by combining these two approaches, we could attempt to address the issue of digital violence against women and girls (Campbell, 2009; McNeil and

Roberts, 2011). Yet, with a lack of motive to protect women, many design companies will not be pushed to put safeguards in place until the regulators or the market demands it.

3.4. Designing feminist research

In line with the epistemological and theoretical framework of the research, this project was designed to align with feminist values. At their core, feminist researchers are interested in the intersections and interactions between sex, gender, and power, specifically the influence of gendered power inequalities over women's lives (Hoyle, 2007). Feminist research aims to bring forth women's stories about their lives, raising public awareness of the challenges and discriminations faced by women, and developing or reimagining society in a way which provides greater levels of equality and justice (Brooks, 2011). There are no distinctly feminist research methods, but rather methods which have been adapted to fit with feminist research ethics and values (Campbell and Wasco, 2000; Gringeri et al, 2010; Miner et al, 2012). As this projects draws on both qualitative and quantitative methods of data collection, both are considered below.

Qualitative methods have a longstanding association with feminist research practice (Hester et al, 2010). Feminist researchers have always been concerned with issues of power and representation, and qualitative methods are seen to be more aligned with the values of feminist scholars (Doucet and Mauthner, 2008). With regards to representation, pre-defined methods of enquiry often favoured by quantitative researchers left little space for women to interpret and describe phenomena in their own words. In contrast, inductive methods like semi-structured or narrative interviews allow women to define their own experiences (Campbell and Wasco, 2000), enabling researchers to honour women's voices more authentically

(Allen, 2011; Testa et al, 2011; DeVault and Gross, 2012). When it comes to power, qualitative methods are seen as creating greater space for empathy and reciprocity (Doucet and Mauthner, 2008), going some way towards reducing the researcher-participant hierarchy (Oakley, 1981). By encouraging researchers to bring their own identity into the interaction, whilst reflecting on the ways that their positionality influences the research process and design overall, qualitative methods enable researchers to be meaningfully present with their participants, whilst "self-consciously de-centring" themselves from the research (Rice, 2009, pp.250).

In contrast, quantitative methods have a more complex relationship with feminist research. Positivistic researchers conceptualised quantitative data as being valueneutral and 'objective', and historically, androcentric quantitative researchers have repeatedly ignored women as a distinct social group, assuming that findings collected from male subjects could be generalised to female populations (Stanley and Wise, 1993; Westmarland, 2001). Feminist researchers have pointed out that this supposed 'objectivity' and generalisability is not possible (Westmarland, 2001; Vera-Gray, 2016), and that all research, including that which is quantitative, is influenced by the philosophical and personal positionings of the researcher (Haraway, 1988). Quantitative research has further been rejected by some feminist scholars due to its reliance on pre-defined concepts and questions. Poor understanding of women's experiences can lead to the wrong questions being asked, distorting the findings and/or leading to a less accurate representation of women's lives (Hester et al, 2010). An example can be seen in the controversial Conflict Tacit Scales, which asked individuals to state how many times their partner had been violent towards them, and how many times they had been violent towards their partner in the last 12 months. Findings suggested that men and women were equally violent towards one another, however the survey did not account for other forms of abuse, the severity and impacts of the abuse, or the possibility of reactive violence amongst those being abused

(Dobash et al, 1992; Hester et al, 2010). Had context been allowed for and incorporated, the findings would likely have better reflected the gendered picture captured by measures of other, less nuanced, phenomena such as murder statistics.

Despite these issues, quantitative methods can be feminist in their aims and impacts if they are carefully designed and applied, with the intention of amplifying women's voices and driving forward change (DeKeseredy, 2011; Miner-Rubino and Epstein Jayaratne, 2011; Miner et al, 2012). Quantitative data has proven useful for identifying links between different variables, enabling practitioners and policy makers to predict potential outcomes (Testa et al, 2011). The DASH risk assessment, which supports professionals to identify which women are most at risk of homicide, relies on statistical data to quantify these risks (Richards, 2024). Quantitative data can also be crucial when it comes to engaging stakeholders, with policy makers and politicians often more receptive to statistics and percentages (Miner-Rubino and Epstein Jayaratne, 2011; Westmarland, 2011; Miner et al, 2012). Statistics on domestic abuse have illuminated the pervasive and widespread nature of the issue, encouraging political and policy responses (Hoyle, 2007; DeKeseredy, 2011). Without this data, domestic abuse may have remained sidelined, a private matter of limited consequence to those with the power to make change.

3.5. Research methods

This research took a mixed methods approach to data collection, with each data set making a valuable contribution to the research findings. Qualitative interviews with professionals and women with lived experience provided rich and detailed personal accounts describing the nuances of working with those in a relationship, or of being in a relationship, where technology was used to facilitate abuse. In contrast, quantitative data has allowed for an assessment of the prevalence of difference forms of TFDA, as well as identifying how TFDA perpetration changes pre- and post-separation. The survey additionally provides statistical information on women's interactions with support services, allowing us to see how different services were performing at the collective level. Ultimately, each data set was able to fill in gaps which the other data type necessarily could not address.

On its own, the survey data was not able to produce fully rounded answers to the research objectives, as it contains very little contextual information about the wider dynamics within the relationships, the subtle ways the abuse developed over time, and how help seeking was actually experienced. On the other hand, the qualitative data necessarily draws on a much smaller and less representative sample, which limits the scope of the conclusions that can be drawn. Conducting a survey alongside the interviews meant a greater number of women could participate in the research, with the number of survey participants greatly outweighing those who participated in an interview. However, the interview data provided much needed context within which the quantitative data could be interpreted. Using both methods of data collection meant that both wider trends and individual narratives could be combined to produce a rich and comprehensive account of TFDA and help-seeking within the UK.

Alongside the survey, two different sets of interviews were conducted: one with women with lived experience, and one with professionals working in the domestic abuse sector. The reasons for conducting both sets of interviews were multifaceted. A core aim of this project was to listen to women's voices and to create a space which promoted epistemic justice (Fricker, 2007). However, professional participants were easier to recruit than women with lived experience, and it was felt that it would be less painful for them to recount cases they had worked with than for women to tell their own stories. This allowed for a greater volume of data to be collected and analysed. It was also advantageous to include both women with lived experience and professional participants within the research because of the focus on accessibility of services. It was important to understand the challenges that women faced from their own perspective, but it was also important to understand what the problems were from the standpoint of service providers. By combining these perspectives, it was possible to make a more thorough assessment, and to provide more realistic recommendations, with regards to future service delivery.

All three strands of data collection (the survey, the lived experience interviews, and the professional interviews), were conducted concurrently. This was mainly because of the impacts of the coronavirus pandemic, with data collection taking place throughout 2021. At the time the interviews were due to take place, the University ethics board was only approving online data collection, and all data collection therefore had to take place remotely. Coupled with this physically restricted access to participants, the domestic abuse sector and victim-survivors of abuse had also been significantly affected by the pandemic and the associated lockdowns. Many women had had to delay leaving their partners, and when lockdowns lifted in 2021 there was a higher-than-average number of women looking to escape abuse (Hohl and Johnson, 2021). This meant that services were mostly running at or past capacity, and that there was a smaller pool of women who could participate safely in the research (women could only participate in this research post-separation, which is explored further in section 3.6.1.). These factors contributed to significant delays in

data collection, with the survey and the interviews all taking 12 months to complete. As a result, it was not possible to conduct the research strands consecutively. Fortunately, the need to conduct all three strands concurrently did not affect the quality of the data, as no one set necessarily needed to lead on from another. Instead, the survey was informed by the literature review and pre-validated scales, meaning that it could be applied with minimal changes. The two sets of interviews, one with women with lived experience and one with professionals, were designed based on a comprehensive literature review, which was used to inform the questions participants were asked.

Because overlaps exist across all three data sets, treating each data set separately within this chapter did not make sense. For example, the inclusion and exclusion criteria for the survey and the lived experience interviews were the same, as they drew on participants from the same sample. There were also methodological similarities between the two sets of interviews, particularly during coding and analysis. Therefore, the remainder of this chapter will follow all three data strands through the research process concurrently, as they were conducted in real life.

The following pages will explore the inclusion and exclusion criteria, participant recruitment, participant demographics, initial contact with participants, data collection, preserving participant anonymity, and coding and analysis. The chapter will then conclude with a statement on researcher positionality, reflecting on the impacts that my own position has had on the research. Owing to the sensitive nature of the topic, detailed ethical considerations needed to be made to support women and professionals to participate safely. Research ethics will be discussed throughout this chapter, though there is a more explicit focus in the sections on initial contact and preserving anonymity.

This research was designed and conducted in accordance with the University of Nottingham's Code of Research Conduct and Research Ethics (2020), and the Economic and Social Research Council Framework for Research Ethics (2021). The approved ethics application can be found in appendix G.

3.6. Inclusion and exclusion criteria

Before the research could commence, decisions needed to be made about who the participants would be. It had already been decided, based on gaps in the literature (see section 2.3.4.), and the subsequent research objectives (see section 3.1), that both women with lived experience and professional participants would be included in the research. The inclusion and exclusion criteria were deliberately set to widen eligibility as far as possible, whilst ensuring that participants would be safe. The inclusion and exclusion criteria for the survey and the lived experience interviews were the same, as participants were drawn from the same sample, and these criteria are therefore discussed collectively below. The inclusion and exclusion criteria for the professional participants was different and is considered separately.

3.6.1. Participants with lived experience

In line with statistics (Office for National Statistics, 2024a and b) and research (Dobash et al, 1992; Walby and Allen, 2004; Aitken and Munro, 2018) on the gendered nature of domestic abuse, participation in the survey and the lived experience interviews was limited to women only. Women's experiences were of particular interest because of their increased vulnerability to TFDA (Powell and Henry, 2019; Yardley, 2020; Tanczer et al, 2021), owing to the systemic disadvantages women face within society (Dragiewicz, 2009; Yardley, 2020; Anderson, 2023). By isolating women as the sole focus of the study, it was possible to analyse the findings

through a gendered lens, deepening our understanding of the ways women are subjected to, and experience, TFDA.

Whilst participation was limited to women only, no stipulations were made about women's partners, as it was hoped that a gendered analysis of perpetration may also be possible. However, 95% of perpetrators who were reported in the survey, and 100% of perpetrators reported in the interviews, were male. Whilst this did not create sufficient data for an analysis of women's victimisation in same-sex relationships, this data does back up literature and theory on domestic abuse by demonstrating that men are the primary perpetrators of domestic abuse against women (Dobash et al, 1992; Walby and Allen, 2004; Aitken and Munro, 2018, Flynn et al, 2024; Jurasz, 2024).

To reduce risk to participants, women were only eligible to take part in the survey and interviews if they were no longer in a relationship with their abusive partner. This criterion was met by all women participating in the interviews, who had each been separated from their partners for between 1.5 and 9 years. It was not possible to verify whether women had left their relationships prior to completing the survey, owing to their anonymity. However, all advertisements, along with the information and consent forms (see appendices C, D, E, and F), made it clear that women should only participate if they had left their abusive relationship.

As well as setting criteria around relationship status, it was also stipulated that women should only answer questions in relation to their experiences after the age of 16. This boundary was set to reflect the cross-governmental definition of domestic abuse (Home Office, 2012), which became the statutory definition under the Domestic Abuse Act during the course of the research. Whilst it is acknowledged that girls under the age of 16 are subjected to TFDA (Dragiewicz et al, 2018; Davies, 2019), under-16s are not eligible to access UK domestic abuse services, and they would therefore

be unable to comment on their experiences with these services. As service provision was a key aspect of the research, it was felt to be unethical to allow under 16s to participate. Setting the minimum age for participation at 16 also removed any concerns around participants ability to consent or the need for proxy consent, as those under the age of 16 are legally unable to give consent under the Mental Capacity Act 2005, unless they have been assessed as Gillick competent (Lambert et al, 2011).

Other than being a woman, based in UK, who is over the age of 16, and who has experienced TFDA but is no longer in an abusive relationship, no other criteria were set for women to be eligible to participate.

3.6.2. Professional participants

For the professional interviews, the only eligibility criterion was that the participant should work for a specialist domestic abuse service within the UK. Eligible job roles were broad, and included outreach workers, family practitioners, helpline staff, refuge workers, Independent Domestic Violence Advocates, and service managers. A range of job roles and levels of seniority were represented, and participants hailed from all four countries of the UK. Whilst professionals of any gender could participate, all of those who came forward were women. Although this was not anticipated, it was unsurprising given the predominantly female workforce within the sector (Women's Aid, 2022).

3.7. Participant recruitment

Several different methods were used to recruit participants, with restrictions linked to the pandemic compelling flexibility in approach. Recruitment methods for the

survey, lived experience interviews, and professional interviews are discussed in turn below.

3.7.1. Survey

Due to the pandemic and the fact that this was a hard-to-reach population, the decision was made to recruit survey participants using convenience sampling. The survey was primarily distributed via Twitter (now known as X), with a dedicated project account set up to support recruitment. Posts to this account were shared by advocates and domestic abuse organisations from across the UK, including specialist by-and-for services. Outside of social media, posters about the research were put up in Women's Centres, in women's toilets at venues advertising the 'Ask for Angela' scheme (2022), and in women's toilets at the University of Nottingham's University Park Campus. A small number of domestic abuse organisations, Women's Centres, and research centres also included the survey within their newsletters, helping to maximise reach.

Despite significant efforts recruitment was slow, taking 12 months to complete. In total, 141 women participated in the survey between November 2021 and October 2022. Recruitment methods meant that the sample was self-selecting, and within this research, the self-selecting sample resulted in a lack of ethnic diversity amongst participants (see section 3.8.1. for a demographic breakdown). A self-selecting sample for a survey that was advertised as being about TFDA will also have impacted on the generalisability of the research findings, and consequently, the data only provides insights into the experiences of women who have been subjected to TFDA. It cannot be claimed that the data accurately reflects the prevalence rates of TFDA amongst the general population, or even amongst all women who experience domestic abuse, as some women who are subjected to domestic abuse will not be

subjected to TFDA. This being said, research does suggest that most women subjected to domestic abuse are also subjected to TFDA (Douglas et al, 2019; Dragiewicz et al, 2019; Woodlock et al, 2020; Tanczer et al, 2021), and therefore there is a possibility that the findings do reflect the majority of domestic abuse victim-survivors in the UK. However, further research would need to be conducted to establish this, and therefore it will not be assumed here that the findings are generalisable to all women subjected to domestic abuse.

Although there were challenges in recruiting participants, recruiting 141 participants meant that the number needed for adequate power was surpassed (minimum 138 participants). This number was calculated based on Cohen's medium effect size (0.30 for correlations), with 95% confidence levels, and a significance level of 0.05.

3.7.2. Lived experience interviews

Unlike the majority of research on domestic abuse and TFDA, the decision was made not to engage with gatekeepers to recruit women for the interviews. Often, those researching with women affected by domestic abuse will recruit participants via the police, domestic abuse services, or refuge accommodation (Leitao, 2021). These women are easier to reach owing to their engagement with services, and the fact they are engaged with services can mean that they have ready access to support. In contrast, women who are supported by friends or family, or who can support themselves, are much less accessed, as they are usually harder to reach (Orme, 2003; Hoyle, 2007). Despite the challenges, for this research it was deemed important not just to recruit women via gatekeepers, as one of the aims was to understand how being subjected to TFDA impacted on women's ability to engage with support services. If women were recruited through services, this would exclude women who

had not felt able to contact services at the time of the abuse. It would also exclude women who may previously have been involved in services, but who no longer were. It was anticipated that some of these women may have salient recommendations for improvements to practice. On top of this, it was also deemed unethical to rely on services to support with the recruitment of women who were accessing their services, as data was collected during the pandemic, when services were already struggling to meet demand (Women's Aid, 2021).

In the end, all six of the women who volunteered to take part in an interview did so after completing the survey. The interviews were advertised at the end of the survey, with women being invited to email the researcher to express interest or ask for more information. Whilst this was not the only way women could opt to participate, as the interviews were also advertised separately in the same way as the survey, this was the only method of recruitment that proved successful. In this instance, this method of recruitment was deemed appropriate, as the two data sets did not require separate samples.

3.7.3. Professional interviews

Gatekeepers were used to recruit professional participants, with recruitment of those working in the domestic abuse sector being supported by specialist organisations. Organisations were contacted via email and invited to share the call for participants with their employees, who were then asked to contact the researcher directly. Initially, a list of 273 UK-based services was drawn up, and services were contacted in groups of 10-15 until a sufficient number of participants had been recruited. In total, 64 services from across the UK were contacted, which yielded 16 individual participants.

Decisions about which services would be contacted were strategic, ensuring that a cross section of different sized organisations, and both generalist and specialist by-and-for organisations, were represented. Participants also varied in their confidence with technology, with participants ranging from those with very little confidence; "it was probably in the last five years that I got a smart phone...I only use the basic things on it because I'm not that high tech" (P1), to those with more; "I grew up with technology...so I'd say we have enough knowledge to definitely make sure we can safeguard" (P4). This provided a range of experiences which enhanced the quality of the data.

3.8. Participant demographics

The following pages provide information on participant demographics. Participants were recruited from across the UK, inclusive of England, Scotland, Wales, and Northern Ireland. On the whole participants were demographically quite diverse, except by ethnicity, with those from ethic minority backgrounds being less well represented within the research. Participants were diverse by age, occupation, sexuality, and disability status.

3.8.1 Survey respondents' demographics

Considering the significant challenges posed by the coronavirus pandemic, the sample of women who participated in the survey was relatively diverse, with the spread of participants across England, Scotland, Wales, and Northern Ireland being close to that of the general population.

Table 1: Which country do you live in?

Country	Survey	UK Population*
England	82%	84%
Scotland	9.4%	8%
Wales	7.2%	5%
Northern Ireland	1.4%	3%

*UK Population Data, 2023

Northern Ireland was slightly less well represented than England, Scotland, and Wales. This is believed to be a result of the researcher having fewer contacts in Northern Ireland, and the impacts of the political situation on violence against women and girls, affecting the ability of survivors to speak out (Doyle and McWilliams, 2019).

Women were asked about their age at the beginning of the relationship, to assess whether younger women were at higher risk of TFDA. Findings confirmed that younger women were more likely to have been subjected to TFDA, which is in line with findings for domestic abuse more broadly (Office for National Statistics, 2024b). However, the data also shows that women of all ages had been subjected to TFDA within their relationships.

Table 2: How old were you when the relationship started?

Age	Survey
16-17	17.3%
18-24	33.8%
25-34	25.2%
35-44	15.8%
45-54	6.5%
55-64	0.7%
65+	0.7%

Women's partners were usually older than them, with 46.5% answering as such. This is in line with wider relationship statistics in the UK, with male partners tending to be older than women (Office for National Statistics, 2024c).

Table 3: Was your partner older or younger than you?

Age Difference	Survey
My partner was more than	
5 years older than me	23.6%
My partner was between 2	
and 4 years older than me	22.9%
My partner and I were a	
similar age (within 2 years	
of each other)	40.7%
My partner was between 2	
and 4 years younger than	
me	7.9%
_	
My partner was more than	
5 years younger than me	5.0%

Women were also asked about the length of time they had been with their partner. This data was split, with the two most common answers being 'more than one year but less than 5 years', and 'more than ten years'.

Table 4: How long were you in the relationship?

Relationship length	Survey
Less than 1 year	17.9%
More than 1 year but	
less than 5 years	36.4%
More than 5 years but	
less than 10 years	15.7%
More than 10 years	30.0%

When it came to employment data, all social categories were represented. Here, 'not listed' refers to those who were self-employed either full or part time.

Table 5: What is your main employment status?

Main employment status	Survey	
Employed (full time)	46.0%	
Employed (part time)	17.3%	
Student	20.1%	
Unemployed	15.1%	
Retired	0.7%	
Not listed	0.7%	

Students were over-represented within the sample (20.1%). Higher levels of student recruitment are most likely a reflection on the recruitment methods, with posters having been shared on the University Park Campus at the University of Nottingham and on Twitter (now known as X). However, as domestic abuse is also

known to be particularly prevalent amongst female university students (Khan, 2021; Jones et al, 2024), it cannot be ruled out that TFDA is also over-represented amongst student populations. Further research would be required to establish whether this is the case.

Participants were further diverse with regards to disability and sexuality. 24% of survey participants identified as disabled, which is the same percentage as for the general population (House of Commons Library, 2023). 1.5% of survey participants identified as lesbian and 16.2% identified as bisexual, compared with 1.1% and 1.9% of women within the UK (Office for National Statistics, 2023). The over recruitment of bisexual women may reflect the over recruitment of students, who are more likely to openly identify as bisexual (UCAS, 2021; Smith et al, 2022). However, as with student status, bisexual women are known to be at greater risk of experiencing domestic abuse (Corey et al, 2022), and it may therefore be the case that bisexual women are more likely to be subjected to TFDA. Again, this is something which would require further research.

The only area where diverse recruitment was less successful was in relation to ethnicity. Despite efforts to engage with specialist by-and-for services, women from Black or Black British, and Asian or Asian British backgrounds were underrepresented within the survey.

Table 6: How would you define your ethnic identity or background?

Ethnic identity or background	Survey	UK Population
White British	84.3%	80.5%
Other White Background	6.4%	4.4%
White Irish	2.8%	0.9%
Mixed Black or Black British and White	2.1%	1.1%
Black or Black British	1.4%	3.3%
Other Mixed Background	1.4%	0.5%
Asian or Asian British	0.7%	7.5%
Not Listed	0.7%	0.6%

The under-recruitment of Black and Asian women is a limitation of the study, and further research is required to understand their specific experiences.

3.8.2. Lived experience interviews participant demographics

Detailed demographic information will not be provided for the six women with lived experience who participated in an interview, to protect their identities. However, collectively the women ranged in age from mid 20s to late 50s, and all six women lived in England or Wales. All of the women were White, and all but one were British. Five of the six of the women were educated to degree level, and all had been or were currently in education or employment.

As with the survey, efforts were made to advertise the interviews to a diverse sample of women, however, the fact that all interview participants were recruited via the survey meant that the lack of ethnic diversity within the survey had a knock-on effect within the interviews. That the interviews had to take place online during the Covid-19 pandemic is also believed to have had a negative impact on the diversity of the sample. Only those with secure access to a personal device and email address would have been able to safely participate, with those who have less technical confidence or skill, a lower income, or no secure access to technology facing barriers to participation (DeVault and Gross, 2012). Intersecting disadvantage means that women from working class backgrounds, ethnic minority backgrounds, and disabled women are less likely to have secure access to technology (Dafoulas et al, 2022), which may have contributed to issues with diversity in the sample. If the research were to be repeated, offering in-person interviews or engaging with gatekeepers may have facilitated a more representative sample. However, the fact that any women were recruited is viewed as a success, considering the challenges posed by the pandemic.

3.8.3. Professional participant demographics

A broad spectrum of professional participants was recruited, heralding from all four countries within the UK and representing a range of different positions and levels of seniority. The country each participant was from, along with their job role, is listed in the table below.

Table 7: Professional Participants' Demographic Information

Participant one	Domestic Abuse Service Manager	England
Participant two	Specialist Black, Asian, Minority Ethnic and Refugee Worker	England
Participant three	Domestic Abuse Support Worker	Scotland
. a. a.s.pant amos	a constant and a complete trainer	Cocttania
Participant four	Refuge Manager	England
Participant five	Domestic Abuse Support Worker	Northern Ireland
Participant six	Independent Domestic Violence Advocate (IDVA)	England
ratticipant six	independent Domestic Violence Advocate (IDVA)	Liigiaiiu
Participant seven	Domestic Abuse Support Worker	England
Participant eight	Domestic Abuse Support Worker	Wales
Participant nine	Helpline Worker	Wales
. a. a.e.panemie		174.00
Participant ten	Domestic Abuse Advisor in a non-profit	Wales
Participant eleven	Domestic Abuse Service Manager	Scotland
·		
Participant twelve	Domestic Abuse Support Worker	Wales
Participant thirteen	Domestic Abuse Service Manager	Scotland
Double in out for out or	Demostic Abuse Cunnert Works	Contlor
Participant fourteen	Domestic Abuse Support Worker	Scotland
Participant fifteen	Domestic Abuse Service Manager	Northern Ireland
Darticinant cirtaer	Domostic Abuse Cose Warker in a Warranta Contra	England
Participant sixteen	Domestic Abuse Case Worker in a Women's Centre	England

This sample has enabled this research to build on the work of Tanczer et al (2021), specifically through the inclusion of participants from Northern Ireland. The sample also included a broader spectrum of participants in relation to confidence with technology and TFDA, which Tanczer et al (2021) identified as a limitation of their study. In this research, some professionals had opted to participate because they were particularly interested in TFDA and had been actively involved in developing resources for their organisations. In contrast, others had come forward because they knew very little about TFDA, and they wanted to emphasise how difficult their job had become. This variation within the professional group was of great benefit to the research, as it illuminated both the struggles that professionals faced, and the ways they had navigated around various challenges.

3.9. Initial contact and consent

Once participants had been recruited, contact with the research instrument (in the case of the survey) or researcher (in the case of the interviews) needed to be carefully managed. As the research sought to speak with women impacted by TFDA, there was a possibility that women who were still under digital surveillance would click on links or try to contact me. This could put them at risk of harm if their partner was to discover the contact. As a result, various safeguards were put in place to lessen the likelihood of this happening. These will be discussed per research method below.

3.9.1. Survey participants

As survey participants were anonymous, it was not possible for me to assess whether it was safe for them to participate in the survey. It was made clear in all the advertisements and on the first page of the survey that women should only participate if they were no longer in an abusive relationship, giving women the opportunity to

assess their suitability for themselves. Additional steps to protect participants were taken, in an attempt to mitigate any risks that may be present if women were to click on the link whilst still in an abusive relationship, or whilst they were still being digitally stalked. In line with industry recommendations for good practice (Women's Aid Research Integrity Framework, 2020), the link to the survey was disguised by removing any reference to abuse, making it appear as a link to a general survey about technology. This meant that the purpose of the survey should not be immediately apparent to anyone who may find the link in the woman's browsing history. To try and prevent their participation from being discovered at all, information on how to clear browsing history was also provided to women both at the start and the end of the survey. Women were also given a list of support services both at the beginning and at the end of the survey, so that they could follow up with professional organisations irrespective of their participation or non-participation in the research.

So that they could make an informed decision about participation, women were provided with information about the study both in the advertisements and on the first page of the survey. If women wanted to go ahead, they were asked to provide confirmation that they were eligible to take part and that they gave consent to participate by checking a series of boxes. Beyond this it was not possible to take any further steps to assess, protect, or support participants, owing to their anonymity. It was trusted that women could assess their own eligibility and any risks they may face from participating, with women possessing the most knowledge on their own situations.

3.9.2. Interviews with women with lived experience

Similarly to the survey, decisions about safe contact during the lived experience interviews were led by the participants. The women knew their own circumstances

better than I did, and it was trusted that women could make their own judgement about whether it was safe to contact me, and how they wished to do this. Having said this, confirmation was still sought from each participant during first contact that it was safe for me to communicate with them via their chosen email address, and that it was okay for me to send information and consent forms to them at this address. All the women who participated had a safe email address through which they could be contacted.

Once a method of contact had been established, each participant was provided with an information sheet and consent form detailing the scope of the research and the intended outcomes (see appendices C and D). Each of the women were also provided with an interview topic guide so that they could make an informed decision about whether they wanted to participate. Information about support services was shared with women prior to them giving consent, so that services could be accessed whether or not they chose to proceed.

A statement on confidentiality, and the limits of this, was also included within the information sheet, and this was further discussed with women prior to their interviews. Due to the nature of the research, full confidentiality could not be guaranteed. It was explained that, should they disclose information to suggest a child, or a vulnerable adult was currently at risk of abuse or neglect, this information would need to be shared with my supervisory team and with the relevant agencies. A safeguarding protocol was drawn up and agreed with the University ethics committee and my supervisory team prior to the research taking place (see appendix I), however in the end no safeguarding concerns arose during interviews.

3.9.3. Professional interviews

Unlike participants with lived experience, the safety of professional participants was not a significant concern, as they were participating in a professional capacity. To protect their identity, professional participants were asked to contact me directly rather than communicating via a gatekeeper. This was requested to ensure that they could speak freely about their experiences at work, without facing any potential backlash from their employers (Wiles, 2013). Information and consent forms were sent to professional participants upon their expression of interest, so that they could make an informed decision about participation (see appendices A and B). All participants were given the opportunity to ask questions before commencing the interview.

3.10. Data collection

The next few pages will discuss data collection, specifically the tools used, and the steps taken to support participants through the process. The efficacy of the research methods will also be discussed, including the unexpected benefits of conducting the research online.

3.10.1. Surveying women with lived experience

The survey instrument was designed around two pre-existing and pre-validated scales. The first was the TechPH scale (Anderberg et al, 2019), which asks individuals about their interactions with and feelings towards technology. Alongside the existing questions on women's own relationship with and use of technology, the scale was adapted to ask how women perceived their technological confidence and competence in comparison to their partner, and to ask who chose and purchased

items of technology in their home. This scale was included in the survey to establish how women's own feelings about technology, and the dynamics around technology within their relationship, might have affected their access to or use of digital technologies.

The second scale used within the survey was the technology-facilitated abuse in relationships (TAR) scale (Brown and Hegarty, 2021), designed and validated by Australian academics in 2021. Within the survey, thirty statements are distributed across four sub-categories, titled 'humiliation', 'monitoring and control', 'sexual coercion', and 'threats'. As well as measuring which abuses participants were subjected to, the survey also measures the intensity of the abuse, with each participant asked to state whether acts happened 'not at all, once, a few times, monthly, weekly, or daily/almost daily'. The TAR scale was chosen over other scales because it considers the full range of abuses that women may experience, unlike the cyber psychological abuse (CPA) scale (Leisring and Giumetti, 2014), the technologyfacilitated sexual violence (TFSV) victimization scale (Powell and Henry, 2019), or the sexual image-based abuse myth acceptance (SIAMA) scale (Powell et al, 2019). It also includes more detail than some of the smaller questionnaires, with the Partner Cyber Abuse Questionnaire (PCAQ) using only 9 items (Hamby, 2013), and the Cyber Dating Violence Inventory (CDVI) using 11 items, once the perpetration guestions are removed (Morelli et al, 2017). The Cyber Dating Abuse Questionnaire (CDAQ) was considered, however it only included 20 items, as opposed to the TAR scales 30 items, and the items in the CDAQ were written in a less user-friendly way (Borrajo et al, 2015; Brown and Hegarty, 2021). The TAR scale was further chosen because it describes acts of abuse, rather than using academic or legal jargon, which is important for ensuring validity when researching violence against women and girls. Women do not always interpret or understand their experiences in the same way that society or the law defines them (Dobash et al,1992; Miner-Rubino and Epstein

Jayaratne, 2011; Snook et al, 2017), and describing acts of violence or abuse can therefore reduce discrepancies between women's interpretations, by enabling them to make a more accurate assessments about whether they have experienced specific behaviours (DeKeseredy, 2011).

As with the TechPH scale, some adaptations were made to the TAR scale before it was included within the survey. The heading for each section of the TAR scale was amended to make them less confronting for participants. For example, 'humiliation' was changed to 'abuse involving social media or messaging'. The term 'other' was also changed to 'not listed', to reduce 'othering' of participants. A small number of additional questions were also added to the survey, particularly around the smart home. This was a specific area of interest which was omitted from the original TAR scale, as the TAR scale was originally designed for use with adolescents and young people. Finally, the scale was repeated twice during the survey, asking women about their experiences during their relationship and post separation. This allowed for a comparison across each variable, to assess which forms of TFDA generally increased post separation, and which decreased after women had physically escaped their experience.

The survey was conducted online, in part due to the Covid-19 pandemic, but also because this was the most convenient method for recruiting a large number of participants from across the UK. Although an online survey may have prevented women without access to secure technologies from participating (DeVault and Gross, 2012), it was not possible to support women to complete the survey in person due to pandemic restrictions. The decision to conduct the survey online did have some benefits, as participants could engage at their own pace, and they were able to maintain full anonymity (Alessi and Martin, 2010). This may have supported several of the women to participate, enabling them to answer honestly about experiences

which they may have found too difficult to share with a researcher in person (Thompson, 1995).

3.10.2. Interviewing women with lived experience

As has already been mentioned, at the time Favourable Ethical Opinion was obtained for this research, only online interviews were being approved because of the pandemic. Though this had not been the intention when the research was first designed in 2018, all the interviews consequently took place online via Microsoft Teams. As well as previously discussed concerns about accessibility (see section 3.8.2.), the online format initially generated some concerns about a reduced ability to support participants. However, this did not turn out to be too much of an issue. The online format still allowed to for connections to be made and indeed provided some unexpected benefits (this will be discussed in more detail later in this section). Participants were informed before their interview started that they could take a break or end the interview at any time, if they felt they needed to stop. Although some of the participants did become emotional during their interviews, all of them wanted to continue, and in the end, all of the participants chose to complete their interviews.

The interviews with women with lived experience were designed to be flexible, allowing for the schedule to be adapted to meet the needs of each participant. A list of questions had been prepared prior to the interviews, so that this could be followed if women needed support to tell their stories, however the chronological flow of the questions was also intended to leave space for women to tell their own stories. In practice, each of the interviews were more closely aligned with the loosely structed interview format used by Allen (2011), rather than being semi-structured. The intention behind Allen's style of interviewing is to maximise participant voice whilst supporting complex storytelling, and this appeared to work well for the women in this

research. It is not known for certain why the women preferred this style of interview, although it is possible that the women had been influenced by the 'topic guides' sent out upon expression of interest. The topic guides disclosed that interviews would trace women's experiences from the inception of their relationship through to post separation, meaning that women may have come into the interviews expecting and ready to share their experiences chronologically. However, this shift to a more narrative style of interviewing may also have occurred organically, with storytelling being a natural means of communicating our experiences with others (Hesse-Biber, 2011; DeVault and Gross, 2012). All the women provided rich and detailed accounts of their experiences, with interviews lasting between forty and ninety minutes.

At the start of the interviews, women were asked about their preferred terminology when referring to their ex-partner, to give them some control and reduce retraumatisation. Some of the participants wanted to refer to their ex-partner by name, whilst others found this too difficult, preferring to use the pronouns 'he/him', or simply the term 'ex-partner'. Women were largely left to tell their stories as they chose, though there were moments when guidance or reassurance was sought. Sometimes the women struggled to identify or narrate how technology had shaped their experience. For example, Jenn (VS2) shared with me that she had not considered the role of technology in her abuse before, and she expressed concern about whether or not her experiences 'counted'. Reassurance was given that her experiences did count, and that they were a valuable addition to the project. In another interview, Helen (VS1) acknowledged that she sometimes found it difficult to separate out the tech abuse from the rest of the abuse; "We've come off tech abuse though I'm aware, sorry". This had been anticipated, as technology-facilitated abuse is often intricately interwoven with non-digital patterns of abuse, including coercive control, verbal abuse, and sexual abuse (Lever and Eckstein, 2020). In this case, Helen was supported to refocus the conversation back onto technology when it strayed too far away, limiting any need for her to recount potentially painful experiences which were ultimately unrelated to the study.

Alongside needing some support to narrate their experiences, several of the women appeared to 'test out' my reactions to their stories, usually near the beginning of the interview, as a means to establish safety. Some of the women shared very graphic details of their abuse with me, whilst others, like Helen, made self-depreciating comments such as "I think I felt trapped by my own shame, my own shame and embarrassment. Like what an idiot. Do you know what I mean?" Survivors of abuse often experience misunderstanding and blame from those who do not know what it means to be abused or violated, and each of the women involved in this research needed to see that I would not judge them, and that they could trust me to hear their stories whilst remaining fully present with them (Thompson, 1995; Campbell et al, 2009). By remaining calm and validating what the women were telling me, we were able to build a safe connection which enabled them to share their experiences in detail.

However, despite the rapport established, external stigma and internalised shame seemed to prevent some of the women from being able to talk openly and honestly about certain aspects of the abuse (Thompson, 1995), particularly when it came to technology-facilitated sexual abuse. For example, Helen stated that whilst she had not minded discussing some of the sexual abuse with me, this was not something she would normally share with people, "stories like that are just embarrassing...how do you even describe it? It's just fucked up." Women were not asked about technology-facilitated sexual abuse explicitly, meaning it was their choice whether or not to bring it up. It was at this point that Helen asked to pause the interview whilst she let her dog into the room, indicating that she perhaps needed to take a break. Though some of the women briefly mentioned it, none of them chose to continue the conversation around technology-facilitated sexual abuse, and discussion was allowed to move on.

Though none of the women chose to take formal breaks, the majority did momentarily move the conversation onto 'safe' topics at some point during their interview, before returning to their relationship and their experiences of abuse. In several cases, women's pets provided an easy outlet to break up conversation and to discuss something more comfortable. More than one participant chose to have their pet with them for all or part of the interview, which may have supported them with grounding, emotional regulation, and a sense of security (Tedeschi et al, 2015; Mims and Waddell, 2016). Some of these pets could not easily have been transported to another location, and therefore it would not have been possible for the women to have their animals with them had the interviews been conducted elsewhere. This is something for future researchers to bear in mind when conducting sensitive interviews. Another benefit of conducting the interviews online was that they did not take as much time out of the women's day, as they did not have to travel anywhere to meet me. This was important for the women who took part, as they all worked, studied, and/or had caring responsibilities.

Whilst every effort was made to reduce discomfort or harm for participants, it is also acknowledged that participating in research can be a positive experience for victim-survivors. Interviews can provide a dedicated space where women are heard without judgement, and telling their own stories can support women to reclaim their narrative (Burges-Proctor, 2015; Dragiewicz et al, 2023). For some, talking about an often shame laden identity is an act of resistance (Thompson, 1995; Dragiewicz et al, 2023), and being interviewed sensitively for a project which will contribute to some level of future change can provide women with a sense of achievement (Newman et al, 2006; Legerski and Bunnell, 2010; Burgess-Proctor, 2015; Women's Aid Research Integrity Framework, 2020; Dragiewicz et al, 2023). Far from just asking women about their experiences of abuse, this research also placed them as subject experts by asking them what advice they would give to other women and professionals, and

whether there was anything I had not covered that they felt was important. Each of the women had insightful and considered responses to questions about changes they would like to see, to ensure that other women had access to higher quality support than they had had. Participation appeared to be overwhelmingly positive for the women, with Helen (VS1) stating that she felt "really passionate" about sharing her experiences, and that "if it helps even just one person, then I'm happy". Rebekah (VS3) asserted that "women's voices need to be heard", and Jenn (VS2) noted that whilst she had felt unsure what to expect coming into the research, she had "never thought this would make me feel better". In summation, whilst care must be taken to reduce harm or re-traumatisation, we must also ensure that women are given the time and space to share their stories. Ethical concerns about safe participation must be balanced against the right to self-determination, empowering women to speak up and incite change.

3.10.3 Interviews with professionals in the domestic abuse sector

The third strand of data collection involved interviews with professionals working in the domestic abuse sector from across the UK. Professional interviews were semi-structured, with participants being asked how technology and TFDA impacted on service provision, how they risk assessed TFDA, how confident they felt providing advice relating to TFDA, any resources they already used, and any resources which are currently unavailable but which they would find helpful. Professional participants were further asked whether they saw any benefits to technology, and if they recommended any technologies to women for security purposes. Participants were all asked to provide anonymised case examples to illustrate and evidence their points,

which they did. Each of the sixteen professional interviews lasted between thirty and ninety minutes.

As was the case with the lived experience interviews, at the time Favourable Ethical Opinion was obtained for this research, only online interviews were being approved. Therefore, all sixteen professional interviews took place via Microsoft Teams. Following the pandemic and home working, all of the professional participants had prior experience using Microsoft Teams, and they were therefore familiar with its functionality. For this group, online interviews seemed solely advantageous. Using Microsoft Teams meant that professionals from across the whole of the UK were able to participate, sometimes from rural locations. Had the interviews have taken place in person, it may have proved too difficult for me to get to these services, or for staff members to meet me at another location. All the professional participants also indicated that the online format was preferable with regards to their workloads, as it allowed them to slot the interview in-between other meetings. To summarise, access to the interviews was improved for professional participants because of the online format.

3.11. Preserving participants' anonymity

Following data collection, preservation of participants anonymity was a core concern. Anonymity was especially important in this context, both for the women with lived experience and for professional participants, because of the sensitive nature of the research data (Wiles, 2013). Techniques used to anonymise each data set are discussed below.

3.11.1. Survey

As the survey participants were already anonymous, there was not much additional work required to further anonymise the data. No personal information, such as their name, had been collected from survey participants, and demographic information was collected and reported in groupings (e.g. age 16-17, 18-24 etc).

There was a small amount of data from the open text boxes which required anonymisation. For example, one participant provided very specific information on their ethnic background which could potentially have been identifying. Such information was omitted during coding, data analysis, and writing up.

3.11.2. Interviews with women with lived experience

The nature of the research meant that protecting the identity of the interview participants with lived experience was exceptionally important. Although each of the women had been separated from their ex-partner for between 1.5 and 9 years, there was a remote possibility that women's ex-partners could come across research outputs, which may have placed women at risk of further abuse. If women's identities were not protected, it was also possible that their family and friends may see future research outputs, and they may too have been able to identify them from their contributions. Not all of the women had disclosed the details of their abuse to their family and friends, and so it was imperative that this information was not inadvertently disclosed via the research.

To maintain the women's anonymity, each participant was assigned a pseudonym which was used from transcription onwards. The women were able to choose their own pseudonym, enabling them to maintain some level of control over their story and how they were represented within the research. Allowing participants to choose their own pseudonym is now regarded as best practice, as participants can select

something which they feel is representative of their heritage and identity, or which has personal meaning to them (Burgess-Proctor, 2015). This aligns more consistently with feminist research ethics (Campbell and Wasco, 2000), which encourages empowerment and autonomy and the reduction of participant-researcher power hierarchies.

During writing up, information and quotes were additionally screened for identifying features. In some cases, specific details have been disguised to preserve the meaning of the information or quote, whilst removing any possibility that participants could be recognised by those known to them. For example, in some cases the geographic location of an event, the specific activity that a participant was engaging in at the time of the event, or details about children and pets have been generalised or substituted like-for-like. These small changes preserve the integrity and usefulness of the research, whilst safeguarding those who have shared their stories.

3.11.3. Professional interviews

It was important for professional participants to have guaranteed anonymity so that they could speak freely and openly about their thoughts and experiences, without the potential for any professional backlash (Wiles, 2013). In some cases, participants were critical of other services they interacted with, or about their own service's capacity to support women affected by TFDA. Some of the participants had also reached out because they found it difficult to work with TFDA, and this is something which they may not necessarily want their employers to know. On top of this, participants were also providing case studies about women impacted by TFDA, and whilst these had been anonymised by name, had I published details about the professional alongside details about cases, it may have become possible for the

public to piece together this information and identify those in the case studies. On the whole, it was possible to maintain the anonymity of the women in the case studies by anonymising the professional. However, if it was felt that the case study was particularly specific and potentially still identifiable, then it was anonymised in the same way as the data from the lived experience interviews.

The only information shared about each professional is their broad job title and the country they work within. Information about specific local authorities has not provided. Some job titles have also been broadened slightly to prevent identification, for example where there are not many people doing that job in that location.

3.12. Coding and analysis

3.12.1. Survey

Before data collection began, a power calculation established that approximately 138 participants were needed for the survey. This number was calculated based on Cohen's medium effect size (0.30 for correlations), with 95% confidence levels, and a significance level of 0.05. Data collection continued until this threshold was reached, ending with 141 participants.

After the first 14 participants had completed the survey, Cronbach's alpha scores were calculated for the amended TAR scale, to measure internal consistency and check for scale reliability. These scores all came in above 0.7, indicating acceptable internal consistency. Once the survey had reached the desired number of participants, the Cronbach's alpha scores were recalculated to ensure internal consistency and scale reliability were still in place. The scores were as presented in the table below.

Table 8: Cronbach's Alpha Scores

TAR Subheading	Cronbach's Alpha Score
Abuse through social media or	
messaging during the relationship	0.838
Experiences of monitoring and control	
during the relationship	0.853
Experiences of sexual coercion during	
the relationship	0.949
Experiences of receiving threats via	
technology during the relationship	0.876
Abuse through social media or	
messaging after the relationship had	
ended	0.874
	0.0.
Experiences of monitoring and control	
after the relationship had ended	0.858
Experiences of sexual coercion after the	
relationship had ended	0.952
Experiences of receiving threats via	
technology after the relationship had	
ended	0.912

Once data collection had finished, data was coded and entered into SPSS for analysis. Missing values were coded 99 and removed from the data sets. Descriptive statistics were conducted, arriving at the figures displayed throughout this thesis.

Through the remainder of the thesis, survey participants' contributions are labelled 'S', with the survey participant's number acting as their identifier (e.g. S1, S2, and so on).

3.12.2. Interviews

Interviews were analysed using thematic analysis (Braun and Clarke, 2022). Interviews with women with lived experience were coded first, followed by the professional interviews, using an open coding system. The first few interviews in each data set were coded by hand, allowing for an initial set of codes to be established. This data was then migrated onto NVivo, where the remainder of the interviews were coded. Whenever a new code was generated, interviews which had already been coded were re-assessed for the new codes, to ensure that relevant data had not been missed. Whilst several codes overlapped across both data sets (24 codes), there were also codes which were unique to either the lived experience or the professional interviews (for example professional participants had more to say about the 'Domestic Abuse, Stalking and harassment and Honour-based violence' (DASH) risk assessment and safety planning, whilst the women with lived experience were able to provide more insight into longer-term impacts, after contact with services had ceased).

Once the interviews had been coded, the research objectives were revisited, to establish which codes helped to answer which research question. Qualitative codes where matched with the relevant statistical data from the survey, allowing each data type to inform one another. Each of the findings chapters within this thesis largely map on to one of the research objectives: findings chapter one maps onto research question two, findings chapters two and three map onto research question three, and research question four is answered across findings chapters three and four.

Throughout the thesis, professional participants are identified using 'P' and their number (P1, P2 etcetera). Victim-survivors who participated in interviews are also identified using a code and their number (VS1, VS2 etcetera), however where they are directly quoted, their pseudonym will also be give (for example Helen – VS1).

3.13. Limitations of the study

As discussed, there were some limitations to the data collected as part of this study. Whilst participants in the survey were relatively diverse, there was a noticeable under-recruitment of Black and Black British (1.4% of survey participants, compared to 3.3% of the British population), and Asian and Asian British (0.7% of survey participants, compared to 7.5% of the British population), participants (UK Population Data, 2023). This translated into a lack of ethnic diversity amongst those who participated in the lived experience interviews, as interview participants were drawn from the same sample as the survey participants. All six women who participated in the lived experience interviews were White, and all but one were British. Five of the six of the women were also educated to degree level, and all had been or were currently in education or employment.

The fact that none of the participants had used SignVideo (BSL) to contact services was another a limitation of the study. Whilst this does not necessarily mean that none of the participants were deaf or experiencing hearing loss, it would have been valuable to understand the specific experiences of women who had used this contact option.

Whilst efforts were made to recruit disabled women and women from ethnic minority backgrounds, including through sharing the research with specialist by-and-for services, these efforts did not prove overly successful. That the interviews had to take place online during the Covid-19 pandemic is believed to have impacted on the diversity of the sample, as women had to have secure access to a personal device and email address to be able to participate safely. Intersecting disadvantages mean that women from ethnic minority backgrounds and disabled women, particularly from working class backgrounds, are less likely to have secure access to technology (Dafoulas et al, 2022), which may have contributed to issues with diversity in the

sample. If the research were to be repeated, offering in-person interviews or engaging with gatekeepers may have facilitated a more representative sample. However, the fact that any women were recruited is viewed as a success, considering the challenges posed by the pandemic.

3.14. Reflections on researcher positionality

As I understand my participants knowledge to be situated (Haraway, 1988), then I must also account for my own situated position as the researcher. The academic field of violence against women and girls is built upon deep connections with social justice activism and lived experience (Fine, 1994), and yet these connections are rarely acknowledged. Academia has traditionally required researchers to separate themselves from their research in order for it to be seen as rational and 'objective', and therefore of value (Haraway, 1988; Code, 2007; Hesse-Biber, 2011). White, western men were deemed most able to enact this status of detachment (Campbell and Wasco, 2000; Kanuha, 2000; Code, 2007; Weber, 2011), achieving a so-called 'view from nowhere' (Haraway, 1988). In an attempt to match this 'view from nowhere', women and minorities have often silenced their connections with their research, in order to protect their reputations as 'good' researchers. As a result, we have been forced to "smuggle our knowledge of social injustice into a discourse of science that fundamentally contains, and painfully undermines, the powerful knowledge of activist feminism" (Fine, 1994, p13–14).

However, by denying our activist groundings and affiliations, we ultimately fail in our duty to advocate for those we seek to emancipate. In this sense, attempting to remain 'objective' is perhaps unethical (Thompson, 1995). By acknowledging and reflecting on our own position, we also make an explicit commitment to hold ourselves accountable to issues of power and subjectivity, considering the ways our social

positioning informs how we design and frame our research, and what we come to identify as 'legitimate knowledge' (Haraway, 1988; Stanley and Wise, 1993; Campbell and Wasco, 2000; Rice, 2009; Brooks, 2011; Berger, 2015). Being reflexive enables us to achieve what Sandra Harding (2004) termed 'strong objectivity', increasing the validity and transparency of our findings by accounting for, and where necessary reducing, our own presence within the research.

The build-up to this research has been multifaceted and long-standing. Whilst studying for my undergraduate degree I set up and ran a student society which aimed to raise awareness of sexual and domestic abuse on campus. My interest in this arose from my own experiences of violence and abuse in the preceding years. Then, in the final year of my undergraduate degree, I undertook primary research on housing policy with domestic abuse services, and during an interview one participant commented that technology was having a "catastrophic effect on risk and safeguarding" (Brookfield, 2017, unpublished). This comment stuck with me. After graduating with my undergraduate degree, I worked and volunteered in services that support victim-survivors of domestic abuse and sexual violence, and it was during this time I saw the consequences of perpetrators' use of digital technologies first hand. As a result, I came to this research with the motivation of improving support and outcomes for women subjected to men's abuse, particularly where this has been facilitated by technology.

Wilkinson and Kitzinger (2013) identified four ways researchers approach managing their own identity within their research; minimising (removing), utilising (using to inform), maximising (auto-ethnography), and incorporating (the researcher taking part as a participant). Maximising and incorporating are not relevant here, as whilst there are some underlying commonalities, my own experiences diverge in significant ways from those of my participants. When it comes to minimising, by claiming to remove ourselves from our research, or by failing to acknowledge our own

position, we may risk counterintuitively blurring the boundaries between our own voice and that of our participants (Stanley and Wise, 1993). However, by acknowledging our presence within our research, we can aim to achieve what Rice (2009, pp.250) termed "self-conscious de-centring", deliberately removing the parts of ourselves which threaten to speak over our participants. The approach I took was to utilise aspects of my own identity to facilitate or inform the research in a carefully considered way, without my own voice becoming a part of the research.

The aspect of my own experiences which was perhaps most influential on the research design was having taken part in research interviews myself, as a participant. These experiences provided me with a greater level of appreciation for both the challenges and rewards of being interviewed. For example, I was acutely aware of the emotional labour which goes into sharing personal, and often painful information with a stranger, in an environment where they wield more power. I was also aware of the sensitivities around language use, and the fact that for some who have experienced abuse, things like how the perpetrator is referred to and terms such as 'victim' and 'survivor' are deeply value laden and highly political (Papendick and Bohner, 2017).

I also felt that, ethically, participants disclosing sensitive information had a right to know who they are sharing it with (Thompson, 1995; Valentine, 2007 as cited in Berger, 2015). With regards to the professional participants, disclosure of just my professional history was deemed sufficient. Details about my work and volunteer history were provided to all participants within the information sheet, which identified me to professional participants as a 'partial insider' from the start. It was hoped that this information would help to reassure participants that I was not going to reproduce myths and stereotypes about women subjected to abuse, by allowing those working within the sector to have a clearer understanding of who I was, and what the motives for the research were (Thompson, 1995; Almack, 2008; Ross, 2017; Campbell and

Wasco, 2000). This appeared to be successful, with participants speaking openly about their professional experiences, and engaging with me as a peer, using sector jargon and terminology.

When it came to the women with lived experience, whilst disclosing a professional background may have implied an understanding of their experiences, it was also anticipated that at least some of the women would have accessed similar services to those I had worked or volunteered in. This opened up the possibility that women would interpret me as 'representing' services, intensifying hierarchies of power within the interviews. I was also concerned that my professional background may prevent women from being critical of services, which was necessary to understand how service provision needed to change. Therefore, it was decided that a low-level disclosure of a partial 'insider' status based on my own experiences of violence and abuse may help to reduce the researcher-participant hierarchy, by placing myself and the participant on a more equal footing of mutual disclosure (Thompson, 1995; Campbell and Wasco, 2000; Berger, 2015). Disclosure was made at the beginning of interviews when (re)introducing myself and explaining more about the scope and hopes for the research, at which point I noted that my ongoing interest in highlighting women's experiences of violence and abuse, along with my desire to seek change, came from 'a place of both personal and professional experience'. No further details were given, so as not to place too great an emotional burden on the participants (Campbell and Wasco, 2000; Almack, 2008; Campbell et al, 2009), though some participants did enquire further. Having experienced abuse can elicit feelings of shame and fear of being misunderstood (Thompson, 1995; Lever and Eckstein, 2020), and for those with lived experience, knowing that there is some understanding of the complex, embodied experience of life during and after abuse can help to mitigate this (Campbell et al, 2009; Corbin Dwyer and Buckle, 2009). As was hoped, mutual disclosure appeared to create a space in which women felt more comfortable

expressing themselves, with Jenn noting that "people that haven't sort of been though it wouldn't really understand."

Whilst there are benefits to having 'implicit' or 'tacit' knowledge, challenges and potential drawbacks must also be acknowledged. Having shared experiences with participants may lead researchers to make assumptions based on their own experiences, which can result in them missing certain information or avenues of thought (Kanuha, 2000; Almack, 2008; Ross, 2017). To remedy this, Asselin (2003) as cited in Corbin Dwyer and Buckle, 2009) suggested those with some level of 'insider' status should assume no prior knowledge about the area being researched, which indeed they may not have if they are researching a specific aspect of a wider phenomenon. Within my research, mitigating against assumptions meant asking participants follow up questions and reflecting statements or ideas back to them to encourage further clarification. This also helped when participants assumed that I already knew something because of my professional or personal experiences, with participants sometimes making comments like "you'll know how it [tactics of social isolation] works" (Helen - VS1). During data collection, transcription, and data analysis, I was additionally provided with academic and 'clinical' supervision, which gave me space to reflect on my interpretation of, relationship with, and reactions to, the data.

Having said this, researchers without professional or personal experience will also make assumptions based on pre-conceived thoughts and feelings about a particular issue (Corbin Dwyer and Buckle, 2009), and therefore all researchers must engage in self-reflection to 'self-consciously de-centre' themselves (Rice, 2009). Neither being an 'insider', nor an 'outsider' can necessarily be said to produce more accurate research where biases have not been addressed. The careful considerations given throughout this research process should have maximised participant comfort, whilst

minimising any potential risk of data loss or boundary blurring, which can only have strengthened the quality of the data and the analysis.

4. Women's experiences of technology-facilitated

domestic abuse

As previously highlighted, empirical data on women's experiences of TFDA (Douglas et al, 2019; Dragiewicz et al, 2019), particularly in the UK context (Lopez-Neira et al, 2019; Havard and Lefevre, 2020), is currently lacking. Quantitative data (Henry et al, 2020; Tanczer et al, 2021), and research drawing directly on survivor voice (Markwick et al, 2019), have been identified as requiring additional work. This chapter begins to fill these gaps, through offering quantitative and qualitative data on women's experiences of TFDA both during and post their relationships.

Findings have been grouped into three overarching categories; surveillance, threats, and reputational damage. Surveillance of women's daily lives is covered first, as this section contains some of the most common forms of abuse. Digital surveillance is also the most relevant form of abuse for later chapters, regarding women's (in)ability to engage with services. Whilst threats of harm and reputational damage have less impact on women's ability to interact with services, the data on these forms of abuse have still been included so that a more complete picture of women's experiences can be provided, and to contribute towards an evidence base which, at present, is vastly incomplete.

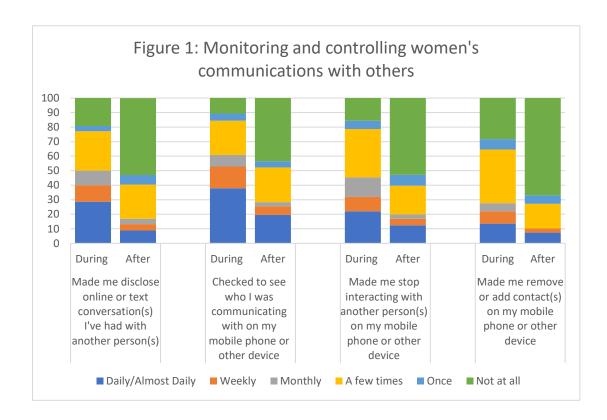
4.1. Surveillance of women's daily lives

One of the main ways perpetrators of TFDA abused their partners was via digital surveillance. Digital devices and online spaces have proved an effective tool through which women can be surveilled, manipulated, and controlled, with advances in the reach and capabilities of technology being described by one service manager as "a controller's dream" (P11).

This section will explore how technology was used by women's partners to monitor their communications, control their access to financial resources, track their location, and surveil them within the home. It will also detail how women's partners gained access to their technology during and post their relationship, in order to carry out the abuse.

4.1.1. Monitoring and manipulating communications with others

Within this study, one of the most prevalent forms of abuse was the use of technology to control or monitor women's communications with others. The chart below (figure one) shows how women answered four items on the survey relating to disclosure of digital conversations and control over contact with others.



The majority of women participating in the survey had had their digital interactions monitored and controlled during their relationship. More than a third, 38%, stated that

their partner had checked to see who they were communicating with 'daily or almost daily', rising to 89% on at least one occasion. 29% had been made to disclose online or text conversations to their partner 'daily or almost daily', again rising to 80% on at least one occasion. 84% of the women had been forced to stop interacting with another person(s), and 72% had been made to add or remove contacts.

Post separation, the use of technology to monitor and control women's digital interactions with others reduced across all items, but roughly one third to one half of women still experienced each form of abuse. On at least one occasion, 57% had their digital communications monitored by their ex-partner, 47% were forced to disclose digital or online conversations to their ex-partner, 47% were prevented from interacting with another person(s), and 33% were forced to add or remove contacts. Whilst this tapering off does suggest that some women were able to re-establish secure access to their own devices once they had separated from their partner, for women who were not able to reset or replace devices, whose partners were more persistent, or perhaps more technically skilled, monitoring of digital communications continued post separation. The fact that perpetrators are able to engage in digital surveillance post separation only serves to re-enforce their apparent 'omnipresence' (Woodlock, 2017; Woodlock et al, 2020; Yardley, 2020), with even physical separation proving insufficient to re-establish women's digital privacy. How perpetrators gained or maintained access to women's devices post separation is explored in more detail later in this section.

In line with the survey data, victim-survivors who participated in the interviews most often spoke of having their digital interactions monitored whilst they were still in a relationship with their partner. Sian and Rebekah experienced high levels of control from their husbands around who they could communicate with, and when. As well as being manipulated into allowing her husband access to her mobile phone, Sian's husband targeted the social media accounts she used to maintain contact with family

and friends. He systematically worked through her social networks, creating a hostile environment within which Sian felt forced to remove contacts.

"He had my Facebook open with my friends list up and he was going through them one by one. He went absolutely crazy at me so I deleted all of the men, even some members of my family...then he started accusing me of being a lesbian and having affairs with my female friends."

As demonstrated by this quote, Sian's husband initially took issue with her male friends, then her male family members, before moving onto her female friends. He accused Sian of being unfaithful to him to coerce her into deleting contacts, as a means of 'proving' her fidelity. When Sian attempted to resist this cutting off of contacts, her husband resorted to physical and verbal intimidation to reinforce the power he held over her.

"If I didn't listen to him, he would follow that up with losing his temper and restraining me or following me around the house screaming and shouting in my face...when it got really bad, he started breaking up our furniture."

Eventually, Sian's husband insisted that they share a mobile phone which did not connect to the internet. This maximised his control over her interactions with others, blocking her social media use and enabling him to decide when she could and could not have access to calls and text messaging. The shared phone also meant that he was able to check who Sian had been in contact with whenever he wanted, depriving her of any privacy. By controlling Sian's access to a mobile phone and the internet,

her husband was able to comprehensively isolate her, removing any ability to access friends, family, or service providers who may have recognised what was happening as abuse, and supported her to escape the relationship. Without these connections, it was easier for Sian's husband to continue to control her, and her social isolation may have prolonged the relationship, and therefore the abuse (Stark, 2007).

Similarly to Sian, Rebekah's husband also monitored and controlled her digital interactions with family and friends, including listening into phone calls and doing random 'spot-checks' of her phone. For Rebekah, contact with family became particularly contentious during her marriage. Rebekah was not allowed independent access to her family, especially her mum, under threats of violence. Therefore, any attempts at contact had to be fleeting and with the evidence swiftly deleted.

"I was too scared to even message my mum to say hi. I would send it and then just delete it. Even doing that and deleting was anxiety inducing because of him suddenly appearing and seeing that."

However, on occasion, Rebekah's husband would demand that he had contact with Rebekah's mum via her mobile phone. This served as both an attempt to maintain his own relationship with Rebekah's family, and as a means to control and manipulate Rebekah's relationship with her mum. These episodes of forced contact additionally served as an excuse for her husband to exert physical violence if he felt rejected by her family.

"He often used to get upset because he felt like no one cared about him, so he would make me phone at all hours of the night to try and speak to my mum...! was like willing her not to pick up the phone on the one hand, on the other hand if she didn't pick up the phone then the violence would escalate for me."

Following these episodes of physical abuse, Rebekah's husband would often prevent her from having access to her phone. This meant she was unable to call for help, either from the police or from her mum, who was the person that she would eventually disclose to.

"If we had a night where he had been abusive and hit me and all those things, he would ask for my phone. He would take it, and he would sleep with it under his pillow."

The use of physical violence to 'punish' Rebekah for having contact with her mum, or if Rebekah's mum did not answer the phone at her husband's demand, meant that Rebekah became increasingly isolated from her mother. She spoke of her longing to pick up the phone, and the fear that stopped her. This isolation was intensified when her husband confiscated her phone after he had physically abused her, removing any and all opportunity for Rebekah to reach out when she needed help most. Again, control over Rebekah's mobile phone use prolonged the relationship and the abuse that Rebekah was subjected to and left her in dangerous situations where she was unable to contact emergency services after physical assaults.

Revoking or withholding access to technology and online accounts was a common method of abuse deployed by perpetrators, with a number of professionals also citing how this tactic had been used against those on their caseloads as an effective means of isolating women from their support networks and maximising the perpetrator's power and control over their partner (P2, P3, P4, P5, P11). Controlling access to a mobile phone acts as a specific example of how technology has expanded

perpetrators' repertoire for enacting harm. Within a society that is increasingly geographically dispersed, it is assumed that technology will enable us to maintain frictionless contact with others (Goulden, 2021). When these technologies are taken away, this can result in rapid and total isolation from others.

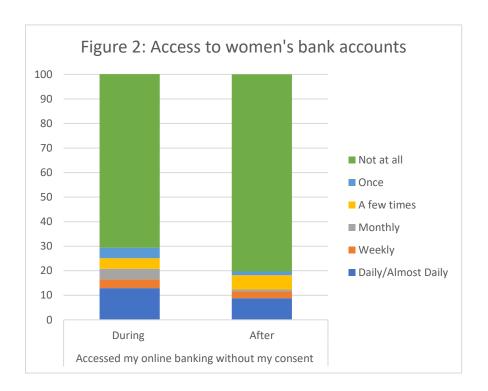
Whilst any woman could be at risk of social isolation via digital control, professionals working with migrant and refugee women highlighted specific ways contact with family was controlled and surveilled for these women, both by their partners and their wider community (P2, P4, P5). Access to technology was regularly restricted, with perpetrators exploiting women's lack of familiarity with UK legal systems, as well as their insecure immigration status, to manipulate and frighten them.

"We get a lot of victims that will come and when they do have access [to technology], it's monitored. So, it's usually you can call your parents, but we'll be there listening to your call. If you WhatsApp or you do any social media, we'll be monitoring what you're doing and what you're putting on. We get a lot of [perpetrators saying] police are listening to your phone calls, and if you say anything wrong then you can be deported back." (P2)

As well as personally monitoring any communications with family, the (incorrect) threat of deportation meant that perpetrators were successfully able to censure their partners even in their absence. This comprehensive level of control left migrant and refugee women with a heightened vulnerability to becoming isolated from their support networks (P5), adding to the longevity of the abuse they experienced (Henry et al, 2020).

4.1.2. Financial control

As well as monitoring women's communications with other, perpetrators were able to utilise technology to monitor and control women's access to financial resources, specifically via online banking. The chart below (figure two) shows how women answered a question in the survey relating to online banking access.



In the survey, close to a third (29%) of women stated that their partner had accessed their online banking without their permission on at least one occasion during their relationship. Where women had their own bank accounts, access could be gained through persuading or forcing women to hand over their passwords or login details (P1, P3). Alternatively, where they did not already use online banking, women's partners would sometimes offer to set up online banking apps for them, during which they could take note of passwords and login details (P2, P5).

Post separation, the percentage of women whose partner was able to access their online banking without their consent fell by roughly one third, from 29% to 20%. One support worker explained how some women were able to successfully re-establish secure and independent access to a personal bank account after separating from their partner by following the appropriate channels (P7). However, for other women, specifically those who had had a joint bank account (P5, P6, P7, P8, P12, P14), or who had been coerced into using their partner's bank account (P2, P3), issues around financial monitoring and control endured beyond the end of the relationship.

There were lots of ways that perpetrators could financially or economically abuse their partner using technology. Alongside taking or spending money in women's bank accounts (P3, P5, P7), perpetrators could control access to money by having women's wages or benefits paid directly into their own bank account, or by transferring money out of women's bank accounts and into their own (P2, P3, P5). Sometimes, perpetrators would then transfer a small 'allowance' back into women's accounts, which would often have been calculated to ensure women could cover basic necessities, but nothing more (P7, P9). This meant that women could not save up to help them escape the relationship, nor could they pay for things which may have helped to them to access support, such as paying for public transport to visit services.

Where the couple had a joint bank account, technology-facilitated financial abuse was even easier to perpetrate, as the abuser had full access to the account to control, monitor or prevent spending. Across both sets of interviews, women and professionals provided examples of technology-facilitated financial abuse using a joint bank account. These included perpetrators withholding login details for online banking (VS5, VS6, P2, P7), meaning that women did not know how much money they had access to, closing down standing orders or direct debits (P6), or blocking women's bank cards (P2, P5, P7, P12, P14). This left women in a financially precarious position, which perpetrators could then make worse upon termination of

the relationship. Domestic abuse support workers explained how perpetrators would move money (P12), or close down accounts (P16), when their partner left them, inflicting additional harm.

"They were separated but hadn't sorted out the financial side, and he took out thousands and put it into the son's account and wouldn't let her have access to the son's account." (P16)

Not having access to financial resources can result in women staying in, or returning to, abusive relationships, as it is almost impossible to function without access to a bank account and the money to pay for safe accommodation and basic necessities (Sharp-Jeffs, 2022). This can be particularly challenging if women have children, with the practical impact on them potentially preventing women from ending the relationship.

As well as accessing women's bank accounts without their consent, or abusing women using a joint bank account, broader uses of technology for the purpose of financial abuse or control were also raised during interviews with domestic abuse support workers (P1, P3, P7), and victim-survivors (VS3). Where women had their own banks accounts and financial resources, financial control using technology sometimes involved being made to purchase costly items of technology for the family. This included replacing items of technology which had been damaged or removed by the perpetrator (P3, VS3), and fulfilling technology-related promises made by the perpetrator to the couple's children.

"Dad told the children to put a PlayStation on their Santa list, knowing fine rightly that mummy would struggle. But women will go into debt for their children." (P5)

Perpetrators could also create debt by taking out loans or overdrafts in their partners name without their knowledge or consent. This was made possible by the intimate nature of the relationship, which gave perpetrators access to women's personal details, and enabled them to impersonate her online (VS5, VS6, P1, P5, P7, P9, P11, P12). It can be very difficult to prove that women did not willingly or knowingly take on debt, and ultimately, perpetrators' coercive or fraudulent procurement of loans leave many women with financial debts from which they had not benefitted, but which they could be liable to repay (Sharp-Jeffs, 2022).

As well as perpetrating financial or economic abuse, access to women's personal bank accounts or to a joint bank account also provided perpetrators with an avenue through which they could track their partner (P6, P8, P9). This was particularly problematic post separation, when spending locations could be used to follow women to a refuge or other new address (P4, P6, P7, P8). Ways of tracing women's locations included identifying the areas where money had been withdrawn from banks or ATMs (P7), viewing the location of supermarkets shopped at (P8), or searching the address of companies used for fast food deliveries or taxi services (P1, P6). As separation is one of the most dangerous times for women experiencing domestic abuse (McFarlane et al, 2002; Dobash and Dobash, 2015; Matthews et al, 2017; Monckton Smith, 2020), the opportunity to track them left women at increased risk of serious harm or homicide.

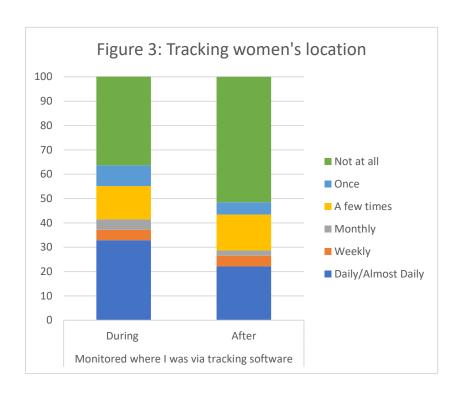
Again, whilst any woman could be at risk of financial or economic abuse, some women are more at risk than others owing to intersecting disadvantage or discrimination (Crenshaw, 1989, 1991). Professionals who participated in this research highlighted the enhanced vulnerability of older women to technology-facilitated financial abuse, in part due to enduring gendered expectations around men owning and managing family bank accounts (P16), as well as some older women's reluctance to use online banking apps (P8). This left women with reduced awareness

of their financial status and without access to money should they wish to escape, with one support worker summing up that "if you control the money, you have all the power" (P16). Migrant women were also identified as a vulnerable group, potentially having benefits applied for in their name without their knowledge (P16), or bank accounts set up in their name, into which their wages are paid, without them being allowed access (P2). This again left women without crucial access to financial resources, which made it harder for them to escape the abuse (Sundari, 2019).

As with enforced social isolation through digital surveillance, digitally enabled financial control exemplifies the heightened opportunities offered to perpetrators of abuse by technology. Online banking apps gather and present personal data which would previously have been difficult or time-consuming to access (Goulden et al, 2017). Now, this data is available at the touch of a button. Despite assertations that access to our personal data is desirable, this specific example shows how shared accounts, such as joint bank accounts, additionally grant us effortless access to other people's data. For those fleeing domestic abuse, this divulgence of personal information through shared accounts could prove to be high cost, or even fatal.

4.1.3. Using technology to monitor and track women's movements

Use of tracking software or devices to monitor a partner's whereabouts was another common tactic used by perpetrators of TFDA. The chart below (figure three) shows how women responded to the survey item 'monitored where I was via tracking software' both during and post their relationship.



One third (33%) of women participating in the survey said that their partner had used tracking software to monitor their movements 'daily or almost daily' during their relationship, doubling to nearly two-thirds (64%) on at least one occasion. Whilst this did reduce post separation, just over one in five women continued to experience tracking by their ex-partner 'daily or almost daily' (22%), and almost half of women were tracked at least once (49%). The ubiquity of digital tracking was well known to support workers, all of whom cited tracking as a regular feature amongst those on their caseloads.

"It's become so normal that I actually have to stop and think. Er, tracking, massive. It's almost obligatory now that we have to mention it." (P3)

During interviews, victim-survivors and domestic abuse support workers cited several different methods of tech-enabled tracking which they or their clients had

been subjected to. Where women's partners were less technologically capable, this could involve women receiving video calls or being asked to send photographs to prove their location (VS3, VS4, P1, P7). When women's partners did possess some digital know-how, tracking and surveillance had involved the co-option of GPS-enabled apps and technologies, such as 'Find my iPhone', 'Snap Maps', Google Maps, WhatsApp, and fitness trackers (VS4, P2, P4, P6, P8, P14). Location sharing requests were common, regularly being passed off by women's partners as an act of 'care' (P2, P4, P14, P16). However, as discovered by Sian and her husband, location sharing technologies are not always accurate (Goulden et al, 2017), and this could lead perpetrators to demand additional proof of location from their partners.

"We had Find my iPhone and he would, I remember once I was taking the kids to play and he messaged me and said where are you, I thought you were at [redacted]? I said I am, and he was like no you're not, you're here. Then he sent me a screenshot of where my location had pinged, and I would say it was about half a mile away from where I was. I actually took a photo of the place and the kids, and I sent it to him, and I was like I'm here." (Sian – VS4)

Whilst in some circumstances inaccuracies in tracking apps may benefit women by allowing them to visit places they may not want their partner to know they have been, this benefit is limited as faults in the software cannot be predicted, and some women may not have the technical awareness to know how to fake this. Rather, inaccuracies may be more likely to increase the risks posed to women, with location inconsistencies heightening their partners suspicion and paranoia, and potentially resulting in acts of physical abuse.

As well as using women's mobile phones, in several cases, perpetrators had bought purpose-built tracking devices which they attached to women's belongings, most commonly fixing them to their cars (VS1, P1, P4, P5, P6, P7, P8, P13, P14). Attaching tracking devices to women's cars provided a low-skill option which perpetrators could engage in even when they did not have direct access to women and their devices (Freed et al, 2017 and 2018), as women cars were often left unattended in public places. Car tracking had become a regular feature for some services (P6, P8, P13, P14), resulting in them developing ongoing relationships with local garages.

"That's quite a common thing. I'd say near enough eight out of ten women who have come, they've gone to the garage, and they've found one. To be fair the garages that we use locally are really helpful and they just do it, they don't even ask any questions." (P13)

Apple AirTags were mentioned as one example of these devices, with a professional participant sharing that a colleague was currently supporting a woman whose partner was tracking her via AirTags secreted in her car and her handbag (P6). However, even where the presence of tracking devices was known, removing them had to be carefully managed, and was generally not advised whilst women remained in a relationship with their abusive partner. Support workers explained how disabling devices could alert the perpetrator to the fact their partner was aware they were being tracked, and removing an avenue of control could result in perpetrators escalating their abusive behaviours further (P1, P3, P8). By contrast, once women had left, tracking devices needed to be removed quickly and efficiently. This was particularly

pertinent for women who were entering into a refuge or moving to a new address, and who might be at significant risk of harm if found.

"The case I know of, she'd fled the perpetrator. She'd moved elsewhere, and he wasn't aware of her location, but he turned up at her door the next day...he'd tracked her. It was on her car." (P1)

Post separation, children became another key target for fathers wishing to track their ex-partner, with (usually unsupervised) contact providing ample opportunity for them to install tracking software onto children's devices, or to conceal tracking devices amongst the children's belongings. In relation to tracking devices, specific examples included placing trackers in baby changing bags (P1) and sewing tracking devices into children's school bags (S32). In terms of children's digital devices, examples included fathers downloading tracking software or utilising pre-existing tracking apps on their children's phones or iPads to monitor their movements (VS5, VS6, P1, P7, P13, P16), or coercing children into filming and sharing their mother's daily routine (P14). The risks posed to women and children if they were tracked to a refuge or to their new address meant that in some local authorities, social workers were now 'quarantining' families belongings, allowing them to check them for tracking devices before passing items onto women and children (P4).

Perpetrators use of tracking devices was highlighted by professionals as another key example of how technology has enabled domestic abuse to become a 24/7 entity. Unlike physical stalking, which takes considerable time and needs to be fitted in around other daily commitments, digital stalking means that perpetrators can see their partners location at the touch of a button and even view records of previous movements retrospectively. This once again fed into the construction of domestic

abusers as 'omnipresent' (Woodlock, 2017; Woodlock et al, 2020; Yardley, 2020), with digital technologies allowing the abuse to become geographically and temporally 'spaceless' (Harris, 2018). The growth of digital stalking was something those who had been in the domestic abuse sector for a prolonged period of time had noted as a significant change during their careers.

"I've been working in this sector for a long time, and tech has really changed the dynamics of what we're working with. I suppose the biggest thing that we're seeing would be women being monitored more with tech. In the past the perpetrator wouldn't have known where she was, but now with mobile phones they know exactly where they are." (P15)

Having said this, digital and physical stalking are not mutually exclusive, and some perpetrators combined technology-facilitated tracking with in-person stalking behaviours.

"I did have one young person who I was supporting... she was high risk. He was stalking her through technology, and then just turning up outside her house, looking through her window, turning up at school." (P2)

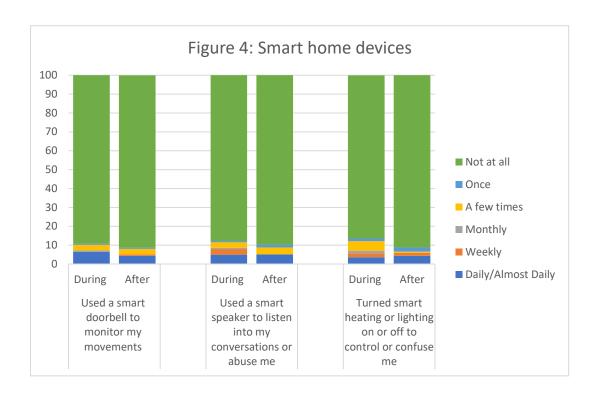
Stalking is known to be a high-risk indicator for serious harm and homicide (Monckton Smith, 2020; Todd et al, 2021), and as demonstrated by this quote, the ability for perpetrators to track women to physical locations (and potentially cause them harm) has only been bolstered by the increasing accessibility and affordability of tracking software and devices. Such capabilities open up opportunities for

perpetrators to track women to services, to new addresses, or to refuge accommodation, putting women at further risk. This means that, where local or national relocation may previously have ensured the safety of women fleeing abuse (Bowstead, 2019), significantly more comprehensive steps must now be taken to prevent perpetrators from tracing women to a refuge accommodation or to a new address. Such challenges will have direct impacts for specialist service provision in the future.

4.1.4. Surveillance and abuse via the smart home

Smart home technologies emerged as one of the least common tools for surveillance and control used against women in the survey. However, this may simply reflect the relatively low take up of such technologies in comparison with more established technologies like smart phones and computers. When techUK surveyed households in 2023, 16% had smart lighting, 18% had a smart thermostat, and 19% had a smart doorbell. Smart speakers were more popular but were still owned by less than half of households, at 40%. In comparison, 94% of UK adults have access to a smartphone, and 72% have access to a laptop computer (Ofcom, 2023). Therefore, it cannot be assumed that smart home technologies are 'safer' than other smart technologies. On the contrary, as discussed within the following section, the invisible and omnipresent nature of smart home technologies may in fact make them more dangerous than other, more visible technologies.

In the chart below (figure 4) women's responses to three questions on smart home technologies are shown.



Within the survey, 14% of participants stated that their partner had turned the smart heating or lighting on or off to control or confuse them on at least one occasion during the course of their relationship, falling to 9% post separation. 12% had experienced being listened to or abused via a smart speaker (10% post separation), and 11% had been surveilled through a smart doorbell (9% post separation). During their relationships, the split between women who had experienced one or more than one type of smart home TFDA was relatively even, with 48% (14 women) having experienced a single form of smart home TFDA, and 52% (15 women) having experienced multiple forms of smart home TFDA. Post-separation this gap widened, with only one third (33%, n=7) experiencing a single form of smart home TFDA, compared to the two thirds (67%, n=14) who experienced multiple forms. Whilst the conclusions which can be drawn are limited due to the relatively small number of women involved, this may suggest that some abuse via smart home technology is opportunistic (e.g., a single form which stops post separation), and that women are able to disable or secure these individual items of technology post separation. In other

cases, perpetrators may be more technically aware and more persistent, enabling them to continue using multiple forms of smart home technology to abuse their partner even after they have separated.

Despite being reported less frequently than the control and co-option of other technologies, the smart home still constituted a significant feature in the abuse experienced by a subset of women, as was evidenced during interviews with victim-survivors. Four of the six women had experienced being watched via indoor or body worn cameras (Helen, Rebekah, Sian, and Jenn), and for Claire and Jenn, the use of the smart home was a core component in their partner's enactment of psychological and emotional abuse.

During her marriage, part of the abuse Claire experienced centred around the household heating and lighting systems. Claire did not have access to the apps which her husband used to control the temperature and the lighting in the house, and whenever Claire's husband was out, he would refuse to put the heating on, leaving her persistently cold. When Claire ended the relationship, the abuse via the smart home escalated. Claire initially left the family home before later moving back in, and upon her return Claire discovered that her husband had stripped the house of all technology, including removing the broadband, phonelines, smoke alarms, and smart doorbell. Claire's husband had also killed the family fish by disabling the WIFI-enabled fish tank, which only he had control over. Combined, Claire's husband's actions made it difficult for her to maintain contact with others, and elicited fear that her home was insecure and unsafe.

Claire then received notification that she had been removed from the Family 365 account, at which point she discovered that her husband had added her to the account as a child rather than as an adult. Family 365 is a Microsoft product, one of many designed to connect family devices and streamline organisation of day-to-day

life. The product also enables parents to monitor their children's online access and activity, and to track their location. A key problem with such products is the assumption of benevolence and equality within the family unit (Goulden, 2019), which as Claire's story shows, is not always the case. By configuring himself as the account manager and Claire as a child rather than an adult, Claire's husband had been able to generate reports on the websites she was visiting, track her location, and receive location updates. The abuse Claire's husband subjected her to via the smart home was so comprehensive, that it had left her feeling "really traumatised". It could also have put Claire at significant risk, had she been searching for support services online.

Jenn's partner also used smart home technology to psychologically abuse and manipulate her, but in a very different way. Throughout Jenn's relationship, her partner had used a live-feed pet camera, which was linked to both his phone and his smart watch, to spy on her. As Jenn was unaware she was being watched, her partner was able to use what he learnt to gaslight her, and to convince her that she was becoming mentally unwell.

"He'd be like 'don't you think it's really unhealthy going to sleep at 7.30pm?' I'd ask how do you know what time I went to sleep? And he'd say you told me. I didn't. There was a lot of this, him telling me that I'd told him stuff. Within six weeks I just felt absolutely mental because I was like, am I just forgetting? Because there were so many things that he was telling me I'd told him that I thought I hadn't, which obviously months later I found out that I hadn't told him, he'd just been watching me."

Essentially, the ubiquitous nature of the smart home technology had enabled Jenn's partner to create a false sense of reality, in that he was able to repeat things Jenn had genuinely said or done whilst not in his presence. Had Jenn been texting people this information, it is perhaps more likely that she would have suspected her partner of compromising her phone. Instead, Jenn did not recall having had these conversations with her partner (as she had not), but she was also unable to explain how else her partner knew this information. She had therefore begun to concede to his assertations that she was 'forgetting' things.

Whilst Jenn had been aware the pet cameras existed; she had not been aware of how they were being used. In her mind they had been installed for the legitimate purpose of checking in on the couple's dog, and they were later justified to her as a security measure.

"I used to say to him come on we need to turn the dog cameras off it'll save electricity, and he used to say no because what about if we get a burglar?"

As with Jenn's case, smart home technologies have made surveillance and monitoring significantly easier for perpetrators, with ready-made, plausible excuses at hand to justify why devices are installed. Indoor cameras can be explained as a mechanism to check on pets (P1, P7), or for household security (P8, P14). Cameras in rural farming communities can be rationalised as a security measure for high-value machinery (P8). Seasonal items can also be co-opted, with one perpetrator turning his children's 'elf on the shelf' doll into a mobile camera (P8). Far from needing to be discrete, the smart home means that perpetrators are now able to display their tools of abuse in plain sight without raising suspicion.

Regarding their own caseloads, specialist domestic abuse workers painted a mixed picture around the use of smart home technologies. Whilst some had not

witnessed much use of smart home devices by perpetrators of abuse (P5, P12, P15), others were able to share multiple examples based on women they had supported. Similarly to Jenn, indoor cameras were mentioned several times (P1, P2, P6, P7, P8, P9), and smart doorbells were raised by eight of the professional participants as being particularly concerning and easy to justify.

"He's all 'let's get a Ring doorbell in because then when you're at home with the kids on your own I can see if anyone's coming', and she's like 'oh that's so kind and considerate'. When actually it's 'why were you out? Why did you take 20 minutes to get to the shop? Why were you all that time? You should have been back by then. I looked on the doorbell and you didn't come back'. Its, they're two different conversations, aren't they?" (P2)

Essentially, smart cameras such as smart doorbells allow perpetrators to 'lock women in', without the need for a physical lock and key. Using recording features or the live feed, perpetrators can see when women are leaving or returning to the address, and they can 'punish' women for any perceived transgressions of the rules they have set (Bailey et al, 2024).

Other, less common forms of smart home TFDA mentioned by support workers included partners accessing women's search and music histories through their smart speakers to monitor or gaslight them (P1, P7), controlling household heating systems via an app (P3, P8, P10, P14), and controlling family use of the TV.

"Recently we had a client who's partner blocked; she couldn't watch any TV.

He'd actually put a lock on the TV, even down to the children's

programmes...He'd blocked all that because she wasn't doing what he wanted her to do, so it was this constant control." (P12)

Another four professional participants also raised children as being conduits through which perpetrators could enact smart home TFDA, particularly post separation. For example, ex-partners had been successful in hacking into smart baby monitors (P6, P9), enabling them to see inside women's homes despite no longer living there. Fathers had also utilised access to their ex-partners Ring doorbells, monitoring when their partner went out and then calling the children to quiz them about their mother's movements (P16). Another father had taken to informing his son that he knew when he and his mother had left the house, which the child then conveyed to his mother. Understandably, this caused distress. The mother later realised that her ex-husband was watching them through her Ring doorbell (P6).

Where staff had seen fewer cases of abuse via the smart home, this was viewed as a consequence of the technology being relatively 'new' when compared with other more established smart devices such as mobile phones, rather than it reflecting the technology's safety (P11). The potential for future issues were raised, with an Independent Domestic Violence Advocate (IDVA) identifying how a client's new car could be used against her.

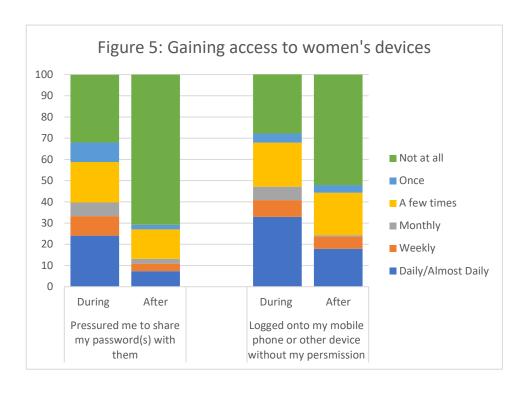
"She's telling me about how the cars got GPS location, and she can see it on her app, and I thought that's fantastic, but he can see where you are. That's just really aiding someone's control to be like where have you gone? Who are you seeing?" (P6) Whilst cars with built in GPS linked to an app are not a mainstream at this point in time, they may become so, and this would offer an additional means of control for those perpetrating TFDA. Concern about the future with regards to smart home technologies and domestic abuse was shared by more than one of the domestic abuse support workers (P1, P6, P11, P15), who were fearful about the level of surveillance and psychological abuse these technologies could eventually enable.

4.1.5. How perpetrators gain access to women's accounts and devices to facilitate surveillance and control

In order to surveil, control, and abuse women via technology, perpetrators must find ways to compromise and then infiltrate their partner's accounts and devices. There are several ways perpetrators are able to gain access to their partner's mobile phones and other devices, dependent on both their technical skill and how well they know their partner. The multiplicity of devices and accounts that most women own means that a motivated perpetrator has ample opportunity to keep 'giving things a go', until they find something they are able to access and glean information from.

"They will consider everything. They will try everything. They'll give everything a bit of a go. They'll log into what they can log into, you know. There's going to be a lot of time and effort put into that." (P6)

This can make it difficult for women to keep their technology secure, both during and post the relationship. The chart below (figure 5) shows women's answers when asked if their partner had ever logged onto their devices without their permission, and whether they had ever been pressured to share their passwords with their partner.



Almost three quarters (72%) of women participating in the survey said their partner had been able to log on to their personal devices without their permission on at least one occasion during their relationship. Post separation, this number reduced by nearly one quarter but remained at 48%. This suggests that whilst some women are able to successfully secure their mobile phones and other devices following the end of their relationship, almost half of the women's ex-partners had engineered a way to maintain or re-establish access to these devices.

At the most basic level, perpetrators may be successful in guessing their partner's passwords or logins due to possessing intimate knowledge of their personal lives, including the types of information that people regularly use for insecure passwords, such as children's names or dates of birth (P6, P7, Dragiewicz et al, 2019). Alternatively, they may encourage or coerce women to share accounts or devices with them, giving them shared access (VS4, P7). Where women's partners are not able to guess passwords or establish shared ownership, access may also be gained through persuading or forcing women to disclose passwords or logins (VS4, VS5, P1,

P3, P5, P7, P16). In the survey, over two thirds (68%) of women stated that their partner had tried to gain access to their devices in this way during their relationship. Post separation this percentage fell considerably, however 29% of women said they still felt under pressure to hand over passwords or logins.

It was also common for devices to have been compromised at the point of purchase, or before women took ownership of them. Both domestic abuse support workers and victim-survivors spoke about mobile phones being bought by perpetrators and 'gifted' to women (VS4, P1, P2, P4, P5, P8, P9), of phones being passed on to women when their partners upgraded their own device (VS1, P2, P9), or of perpetrators offering to set up women's new devices or accounts for them (VS5, P16). These scenarios all provided women's partners with ample time and opportunity to install software or apps through which they could monitor the phones' use (VS5, P8, P9, P14), or to pair the device or accounts with their own (P2). 'Gifted' phones additionally established a power dynamic which left women feeling they were not entitled to enjoy private use of the device.

"I broke my phone, and he ended up rushing out to buy me a new one. I thought he was this superhero. I thought oh my god he's so brilliant to buy me this new phone, wow. In fact, looking back on it, it gave him ownership of my phone. Because he'd bought it, it belonged to him. I felt really guilty, because he had bought it I felt like I owed it to him that he could look at my messages." (Sian – VS4)

As was the case for Sian and her husband, perpetrators need not have extensive knowledge of technology or their partner's personal information to gain access to their devices. Instead, they were able to utilise wider tactics of power and control to

manipulate their partner into feeling beholden to them and therefore allowing them access.

Post separation, there were a number of ways perpetrators were able to initiate or continue surveillance of their partner's digital activities. For the less technologically advanced, methods of monitoring included viewing women's public communications on their social media accounts (P11) or using the mobile phones or social media accounts of children to view women's interactions (VS4, VS6). For those with more technical knowledge, monitoring may take place through accessing women's data via the cloud (P2), hacking into women's email accounts, social media accounts, or online dating profiles (VS1, P2, P7, P15, P16), or downloading spyware or keystroke logging software onto women's devices (VS1, P1, P5, P13, P14, P15). Where they did not possess the technical knowledge or skill to orchestrate this themselves, perpetrators were believed to have accessed the help of friends (VS1), or to have paid professional hackers (P1), though this could have been a perception manufactured by the perpetrator, rather than a reality (Burton et al, 2021). This level of motivation can make it difficult for women and services who are trying to support women to 'digitally decouple' from their ex-partner, with women potentially having to fend off multiple attacks on their digital privacy.

4.1.6. Summary

To summarise, women subjected to TFDA are surveilled by their partners in myriad ways, having their communications, finances, location, and time at home monitored and documented. At present, the majority of digital surveillance is still taking place via mobile phones and social media, but the increasing connectivity of the smart home means opportunities for perpetrators to monitor their partner are becoming ever more pervasive. For women experiencing these forms of surveillance,

opportunities to ask for help, either from friends and family or from services, can be severely limited.

When women decide to leave an abusive relationship, access to specialist services is crucial, both in supporting women to feel empowered enough to walk away and in securing women's mental and physical safety at a time of significant danger (Domestic Abuse Commissioner for England and Wales, 2021; Women's Aid, 2024a). If women are prevented from accessing services, they may remain in abusive relationships for longer periods of time (Women's Aid, 2024a), and when they do leave, not being risk assessed and risk managed leaves them in greater danger of significant harm or homicide (Bailey et al, 2024). Being under digital surveillance therefore represents a serious and ongoing threat to women's psychological, emotional, and physical safety.

For those who do manage to leave, reduction in monitoring and control post separation suggest that some women are able to secure their personal devices and accounts following the end of their relationship. However, the relatively large number of women who continue to experience some form of monitoring and control post separation reveals that many women do not manage to decouple themselves from their partners successfully. Of those who participated in the survey, between 33% and 57% of women continued to experience some form of digital monitoring and control post separation, with 49% continuing to have their location tracked. This has specific implications for women who are accessing refuge or other secret accommodation, which is discussed further in chapter 6.

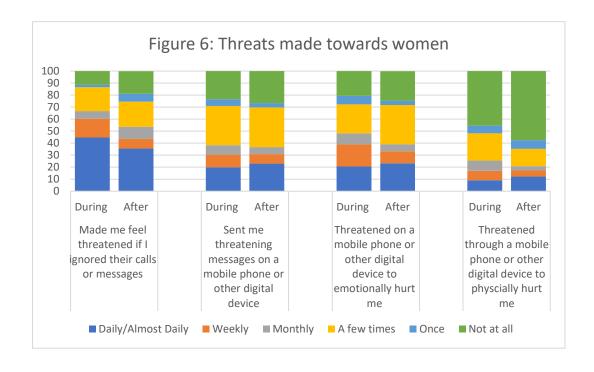
4.2. Threats of harm

Threatening harm through technology was another common tactic used against women in the survey. Again, this was an easy way for perpetrators to abuse their

partners, as they simply required access to a phone number or a social media account in order to carry out the abuse. Direct threats were made towards women themselves, their property, or their friends and family. Perpetrators would also threaten to harm themselves if their partner did not meet their demands, as a means of manipulation and control. Women would also sometimes be encouraged to harm themselves by the perpetrator, which, whilst not a direct threat, contributed towards a threatening environment.

4.2.1. Direct threats to cause harm to women

Most often, women participating in the survey would report they were the primary target of threatening communications from their current or ex-partner. This included the creation of a threatening environment, as well as direct threats of physical or emotional harm. The chart below (figure 6) sets out women's responses to four survey questions regarding threatening communications.



89% of women who participated in the survey said that their partner had caused them to feel threatened if they missed their calls or text messages during their relationship. Post separation there was only a slight reduction, with 81% of women stating that they had been made to feel this way by their former partner. 20% said that their partner had sent them direct threats via a mobile phone or other digital device 'daily or almost daily' during their relationship, rising to more than three quarters (77%) on at least one occasion. Post separation, slightly fewer women (73%) said that they had received threatening messages on their mobile phone or other digital device from their ex-partner on at least one occasion. However, a slightly increased number of women (23%) said that they had received these messages 'daily or almost daily'.

Breaking these threats down into threats of emotional harm and threats of physical harm, a similar pattern emerged. 21% of women said that their partner had threatened to emotionally harm them via a mobile phone or other digital device 'daily or almost daily' whilst still in a relationship, rising to 79% on at least one occasion. Post separation the overall number of women who were subjected to digital threats of emotional harm fell slightly to 75%, however the number of women experiencing this 'daily or almost daily' rose slightly to 23%. Regarding digital threats of physical harm, almost one in ten (9%) experienced this 'daily or almost daily' during their relationship, with just over half of women (55%) receiving these kinds of threats on at least one occasion. As before, the number of women receiving digital threats of physical harm post separation fell slightly to 42%, however the number of women receiving these threats 'daily or almost daily' rose slightly to 12%.

The high percentage of women being made to feel threatened or receiving threatening messages from their current or ex-partner points to the ease with which perpetrators are able to utilise mobile phones and other digital devices to maintain contact, and to perpetrate abuse, both during and post the relationship (Freed et al,

2017 and 2018; Havard and Lefevre, 2020). Most UK adults own a mobile phone (Ofcom, 2023) and are competent at using the call and text functions, which require little to no specialist knowledge. The slight increase in the intensity of threatening contact post separation for some women reflects the underlying aims of power and control which characterise domestic abuse (Stark, 2007). When women leave and therefore reduce their partner's power and control over them, threatening messages becomes one of fewer open channels through which perpetrators can attempt to reestablish control, by eliciting fear. If women continue to resist these attempts, harassment may escalate into stalking, acts of physical violence, and for a small percentage of women, murder (Monckton Smith, 2020; Todd et al, 2021).

In contrast with the survey data, receiving threatening contact via technology was not often mentioned by those participating in the interviews. Only a small number of specific, technology-mediated threats were provided as examples by victim-survivors and domestic abuse support workers. These included receiving threatening messages via a smart speaker (P10) and receiving bank transfers for very small amounts of money with threatening content included in the reference lines (P8, P10). One of the victim-survivors, Jenn, did explain in some detail how she would receive text messages from her partner whilst she was at work, in which he would threaten to change the locks before she returned home, rendering her homeless.

"He used to wait until I went to work...he'd text me like 15 minutes before [a meeting] that he's going to change the locks, I can't live with him anymore...I'd moved in with him and I was paying, but it was still his flat." (Jenn – VS2)

These threats left Jenn feeling "on edge and insecure" and also meant that she was prevented from performing to her full capability at work. This was noticed by her

manager, and had Jenn not ended the relationship within a few months, her partner's actions may have impacted on her continued employment.

The fact that so few women or professionals disclosed threatening contact was explained by one of the domestic abuse support workers, who shared that women often became so used to receiving threatening communications from their current or ex-partner that it ceased being seen as something worth mentioning.

"It's interesting how clients get really so downtrodden, and they feel that it's acceptable, so then it doesn't get reported, or even disclosed to us really." (P6)

This demonstrates the importance of professionals asking women directly about their experiences of TFDA, as women will not always disclose spontaneously (Messing et al, 2020). This may also explain why threatening contact did not feature heavily in the victim-survivor interviews conducted as part of this research. Participants with lived experience were largely supported to share their own narratives rather than being asked a list of questions, to give them some control and avoid re-traumatisation (Allen, 2011). As such, the lack of information around threatening contact may reflect its commonality, rather than its absence.

Instead of direct threats, victim-survivors more often discussed how their partners had created an immersive sense of threat through the anticipatory fear of potential repercussions if they did not obey their husband's or partner's demands relating to their use of technology. For example, Rebekah never felt she was able to miss a call or text message from her husband, in the knowledge that this could result in physical violence against her when she returned home. However, when Rebekah did answer her husband's calls, she would regularly find herself on the receiving end of verbal

abuse, especially if she was discovered to be somewhere or with someone who he disapproved of.

"If I did manage to see my family the phone was always tense for me because I knew that he would be phoning, and when he phoned if he wasn't happy with something the barrage of abuse would start. So, I'd have to stand there with my family with him screaming at me." (Rebekah – VS3)

This left Rebekah in a double bind, where both answering and not answering the phone would result in some form of abuse occurring. Double binds are a common tactic within coercive control (Pitman, 2017), intended to create confusion and keep women focussed on meeting the needs of their abuser. This increases the perpetrators control over their partner and supports their attempts to isolate women from anyone who may be able to support them.

This sense of threat of potential harm was something which continued for women post separation. Even when they were no longer in immediate danger from their expartners, the uncertainty and unpredictability around what their partner may do meant that women continued to second-guess their right not to reply to abusive content.

"Now I think if I don't want to reply to that I'm not going to reply to that anymore, but it's taken me so long to just think it's okay and actually what he is going to do?... But still at the back of my mind there's this unpredictability of well actually what could he do, you know?" (Sian – VS4)

Sian's words demonstrate how fear invades women's psyche, influencing their thought processes for years after the relationship has ended. Whilst Sian was physically free from her ex-husband, mentally he was still coercing her by invoking memories of the intimidation and violence he had subjected her to during their relationship if she did not obey his demands, particularly around her use of technology. This is demonstrative of the omnipresence which can be achieved by perpetrators of TFDA (Woodlock, 2017; Woodlock et al, 2020; Yardley, 2020), who are unencumbered by geographic or temporal constraints (Harris, 2018).

Another way women's partners curated a threatening environment, both during and post their relationships, was by bombarding women with calls or text messages. This manifestation of abuse was common, with several of the domestic abuse support workers (P1, P2, P4, P5, P9 P11, P12, P13, P15), and three of the victim-survivor participants (VS2, VS4, VS6), raising this in interviews.

"He made it very hard to even stay at college because... he was ringing me all the time...it was really pretty unsustainable." (Hanna- VS6)

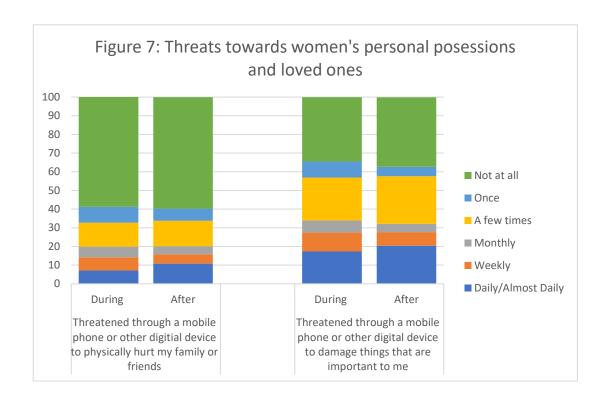
Bombarding women with calls and text messages is a means of digitally replicating tactics of verbal abuse such as shouting or yelling, leading to intimidation and sensory overwhelm. Not all of the calls or texts need to be abusive to have the desired effect of instilling fear in women. As Jenn explained, it was the 'Jekyll and Hyde' unpredictability that made her particularly anxious.

"I hate the feeling of not knowing who you're going to get that day and if they're going to be bad or good. That's a horrible feeling. I just didn't realise until later like the replication of that in a text." (Jenn – VS2)

Jenn's experience highlights how technology has become a tool through which perpetrators can expand their reach, allowing them to recreate remotely the sense of threat and feelings of anxiety which they would previously have only been able to orchestrate in person. Again, this highlights the 'spaceless' nature of this form of abuse (Harris, 2018), with perpetrators able to continue their abuse without being in close proximity to the victim.

4.2.2. Threats of harm to women's personal belongings, family, and friends

As well as threatening to harm them directly, women's partners would also threaten to harm people and possessions which were important to them. This included their family, friends, and personal belongings. The chart below (figure seven) shows the percentages of women who received threatening messages relating to their loved ones, or to their personal effects, during or post their relationship.



The percentage of women whose loved ones had been physically threatened via a mobile phone or other device on at least one occasion remained fairly consistent during and post their relationship (41% during their relationship, and 40% post separation). However, when looking specifically at those whose family and friends had been threatened 'daily or almost daily', it became apparent that for some, the frequency of the threats had slightly increased post separation. 7% of women said their partner had made threats to physically harm their family or friends on a 'daily or almost daily' basis during their relationship, whereas post separation, this number rose to 11%. As discussed previously, the fact that 40% of women's family and friends were threatened by their partner during or post the relationship, combined with the increase in frequency of these threats post separation, directs our attention the fundamental objective of domestic abuse, which is to utilise tactics of fear and intimidation to achieve dominance and control over an intimate partner (Stark, 2007). Threatening to cause harm to women's loved ones can be a powerful tool in evoking fear and may therefore prove to be an effective means of coercing women to stay, or

to return to the relationship. Perpetrators may also use such tactics to induce isolation, with women stepping away from their family to protect them, or women's families stepping back to protect themselves (Bailey et al, 2024).

As with direct threats towards the women, women who participated in the interviews did not often reference digital threats being made towards their family and friends. This may again be indicative of a behaviour becoming so routine that it ceases to be seen as something worth mentioning (P6), or it may be that digital threats did not have the most significant impacts on women and their families (P4). Instead, women were more likely to discuss how their partners had used technology to behave in a threatening manner towards their family and friends, without the content necessarily being threatening in and of itself. This mostly involved harassing or bombarding women's family and friends with calls, texts, and emails, and was particularly prevalent after women had left the relationship when perpetrators were attempting to re-establish contact (VS3, P8).

"So, the SMSs when I first leave are a little bit irritated but not too irritated. Quite sort of friendly, please come back, let's sort this out, I'm sorry kind of vibe. Then when he realises, they change, the tone, he gets more irritated...because he agreed to leave me alone, he then would email everyone else...both emailed and text everyone else." (Rebekah – VS3)

As demonstrated by this quote, after Rebekah's husband was prevented from contacting her directly by a court order, he changed his focus to harassing her family and friends. In essence, his ability to digitally contact her family and friends meant that an avenue had remained open for Rebekah's ex-husband to continue to abuse her, indirectly, after she had escaped from him. This links to the literature on access

and non-access-based abuse (Freed et al, 2017 and 2018); when direct access to Rebekah was blocked, attacks on her family and friends could be commenced, without needing to compromise any of their accounts or devices. By widening the net and bombarding women's family and friends, perpetrators can also maximise the harm caused to women and their families, by creating a sense of threat both to women and to their loved ones, which results in them fearing for one another.

Some of the women who participated in this study expressed feelings of worry or guilt about the impacts their partners' abusive behaviours might have on others, despite it being neither their responsibility nor their fault. Women attempted to shield others by keeping the abuse secret, or by taking steps to prevent the abuse, even if this caused further problems for the women. To provide an example, after she had left, Rebekah lived in fear that her ex-husband would discover her new place of work and contact her colleagues, potentially threatening them directly or causing them to feel threatened due to his persona.

"I just don't want; I just know what he can be like, and I know how busy everyone is, and I don't want them to be subjected to the barrage of abuse that will follow. They don't deserve it." (Rebekah – VS3)

To protect her colleagues and herself, Rebekah had chosen not to appear on her workplace website, despite this being normal practice and a means of attracting more work in her industry. Consequently, Rebekah was continuing to experience ongoing economic abuse, despite being separated from her husband.

Alongside wanting to protect her colleagues from her ex-husband, Rebekah was also concerned that her professional relationships may be affected, should her

husband ever contact her colleagues and consequently 'out' her as a victim-survivor of abuse, particularly if he were to behave in an abusive manner towards her them. This is another example of economic abuse, with Rebekah living in constant fear that her ex-husband may discover her location and engage in 'employment sabotage' (Postmus et al, 2016 as cited in Sharp-Jeffs, 2022). Once again, this all demonstrates how TFDA reaches far beyond the individual and their private life, into women's public lives and the lives of others.

Threats to cause damage to women's property followed a similar pattern to threats made towards women, their family and their friends. 17% of women said that their partner had threatened to damage their personal belongings via a mobile phone or other digital device 'daily or almost daily' during their relationship, with two thirds, 66%, having received these threats on at least one occasion. Post separation, the percentage for 'on at least one occasion' fell slightly to 63%, however the percentage who received digital threats against their property 'daily or almost daily' increased slightly from 17% to 20%. This again demonstrates perpetrators' use of intimidation tactics to attempt to re-establish control, after women have left the relationship.

Within the open text boxes in the survey, women were more likely to disclose threats to their property than actual damage, and the possession women most often referenced as having been threatened was their home. Five women specifically mentioned having to take steps to secure their property following threats of arson, including locking or fitting fire safety devices to letterboxes (S18, S40, S43, and S106), and installing smoke alarms (S43 and S81). In contrast, those participating in the interviews were more likely to provide examples of incidents where threats against their property had been carried out. In some cases, damage was caused to women's non-tech property, such as household furniture, because their partner felt they had failed to obey certain rules around the use of technology (VS4). Women's cars could also be damaged or disabled by their partners, again resulting in social isolation

and/or economic disadvantage (Bowstead, 2020). This form of abuse has specific impacts for women from rural communities, who may have limited methods of alternative transport available to them (P3).

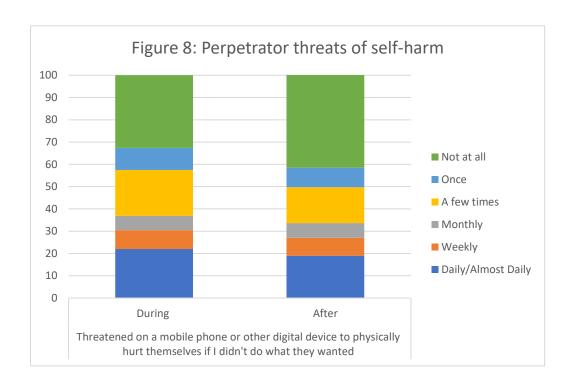
As well as threatening to damage other items through technology, some women's partners would also threaten to or directly cause damage to women's digital devices, including throwing their mobile phones against walls or out of windows (VS3, VS4). Rebekah was unable to turn her computer on without her partners permission, else it would be broken.

"He did break a few computers, definitely one he smashed the screen...if he didn't want me to turn my laptop on then I wouldn't because I would be scared he was going to break it." (Rebekah – VS3)

Similarly to physically removing technology, breaking women's devices can have the effect of suddenly and comprehensively cutting them off from their social networks and support systems. This is even more significant in a world where women do not always live in geographical proximity to their loved ones (as was the case for Rebekah, who's family lived abroad and relied exclusively on digital communication), and breaking items of technology therefore becomes an effective means of inducing or heightening social isolation and exclusion. These actions also prevent women from being able to reach out to services, such as the police and domestic abuse organisations, trapping them in their relationships.

4.2.3. Perpetrator threats of self-harm and suicide

Another threat women were asked about in the survey related to perpetrators' threats of self-harm of suicide. The chart below (figure eight) sets out how women responded to this question.



Just over one in five (22%) said that their partner had threated to cause harm to themselves via a mobile phone or other digital device 'daily or almost daily' during their relationship, with slightly more than two thirds (67%) having received these types of messages on at least one occasion. Post separation, fewer women received messages from their ex-partner threatening acts of self-harm of suicide. However, this was not a significant reduction, with 19% receiving such threats 'daily or almost daily' (down 3%), and 59% receiving these threats at least once (a reduction of 8%).

None of the professional interviewees mentioned perpetrator threats of self-harm, and only one of the professional interviewees mentioned perpetrator suicide. This was not in relation to threats made via a digital device, but was rather in reference to

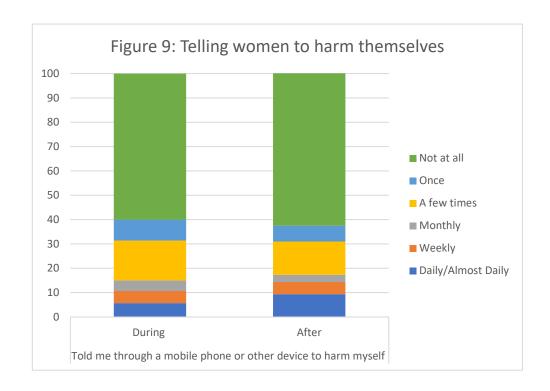
a completed suicide, prior to which a woman's abusive partner had left her a note blaming her for his death. Similarly, none of the victim-survivor interviewees stated that their partner had made digital threats relating to self-harm or suicide. This may be because these women's partners did not threaten suicide or again may reflect the fact that digital threats may not feel as noteworthy as physical acts of self-harm or abuse (P4, P6).

In the context of domestic abuse, threats of self-harm or suicide by an abusive partner are often about maintaining or re-establishing power and control. Women's partners use the love, care, and responsibility women feel (or felt) for them, as a means of manipulating, guilt-tripping, or frightening women into remaining in the relationship (Monckton Smith, 2020). This can be particularly efficient when the couple share children, with women and children being made to feel responsible for the welfare of their father (Katz et al, 2020). The fact that the figures for perpetrator self-harm are higher whilst women are still in a relationship with their partner may point to this being a tactic more so aimed at manipulating women to stay in the relationship. Whilst threats of perpetrator self-harm and suicide decrease post separation, threats against women, their property, and their loved ones increased post separation. This data supports the work of Dobash and Dobash (2015, pp.39), within which they explain that "a man may decide to 'change the project' from attempting to keep her (the victim) within the relationship to destroying her for leaving it", if women attempt to escape the abuse. Recognising these 'changes in project' may help professionals to safeguard women from further harm and homicide.

4.2.4. Encouraging women to harm themselves

Alongside perpetrator threats of self-harm or suicide, women participating in the survey were also asked if their partner had ever told or encouraged them to self-harm

via a mobile phone or other device. The chart below (figure nine) shows how women answered this question.



During their relationship, 40% of women had been encouraged or instructed to harm themselves by their partner via a mobile phone or other device. Post separation this number remained fairly consistent, at 38%. However, a small rise in frequency occurred post separation, with 6% of women receiving such messages 'daily or almost daily' during their relationship, compared to 9% post separation. Again, this slight increase in frequency post separation is likely to reflect the 'change in project' (Dobash and Dobash, 2015), during which perpetrators shift their focus from maintaining the relationship, to destroying their partner. Causing women to harm themselves provides another avenue for perpetrators to literally or metaphorically 'destroy' their victim, and women causing harm to themselves additionally feeds into abusers narratives that their (ex)-partner is hysterical or mentally unstable (Stark, 2007). This in turn provides perpetrators with the opportunity to cite their partner as unreliable, should they ever try to speak about or report the abuse.

Conversations around being told or encouraged to self-harm or complete suicide were very limited across the interviews. This may be because the six victim-survivors who participated in the interviews did not experience this form of abuse. Alternatively, it may reflect a wider stigma and shame around self-harm and suicidal behaviours (Munro and Aitken, 2020). Only one professional participant made the link between digital communications and self-harm, which resulted in a victim of abuse taking her own life.

"There were two years between her contacting us and when she actually died [by suicide] ...what he'd put as a text message to her, especially in relation to how she subsequently died, it was relevant." (P9)

In this case, a direct link was drawn between messages sent by the perpetrator, and the eventual method by which the victim died. These messages hadn't been picked up or acted upon by services, despite self-harm and suicide being relatively common amongst those who have been subjected to domestic abuse (Aitken and Munro, 2018). Further research is needed to understand the complex interplay between technology-facilitated domestic abuse, victim self-harm, victim suicide, and how services approach working with women who are encouraged to harm themselves or take their own lives, to enable more robust identification and intervention in cases where women are being encouraged to harm themselves, or to take their own lives.

4.2.5. Summary

In summation, the use of technology to send direct threats, or to create a threatening environment, is common in cases of TFDA. This form of abuse is easy to

perpetrate, with no requirement for perpetrators to have direct access to women's accounts or devices, or to compromise their security in any way (Freed et al, 2017 and 2018; Havard and Lefevre, 2020). This can make it extremely difficult for women to stop this form of abuse. Alongside this, social networking makes it easy for perpetrators to involve others in the abuse too, by threatening women's family and friends, or their colleagues. This can potentially drive a wedge between women and their support networks, isolating women in the process.

The trends in the data relating to digitally mediated threats also tells us a lot about the 'change in project' perpetrators may go through (Dobash and Dobash, 2015). Threats against women, their family and friends, and their belongings increase in frequency post separation, as do messages encouraging women to harm themselves or to take their own life. In contrast, perpetrators' threats to harm themselves or to take their own life decrease in frequency post separation. The latter is perhaps more demonstrative of an attempt to retain the relationship, whereas the other forms of threatening behaviour suggest a desire to 'destroy' women and the things that they love, either as punishment for leaving the relationship and/or for challenging the perpetrators control.

These shifts in mindset are important for professionals to recognise, as doing so may help protect women from significant harm or homicide during or post separation (Monckton Smith, 2020). Being aware of and reacting to messages encouraging women to harm themselves may also save women's lives, with there being a known link between domestic abuse and victim suicide existing (Aitken and Munro, 2018). However, as the data also shows, women may not disclose threats without being prompted, either because they are so routine that they cease being seen as worth mentioning (Messing et al, 2020), or because women are ashamed, particularly in cases of incited self-harm and suicide (Aitken and Munro, 2018). It is therefore crucial that professionals are trained to ask about women about threats and threatening

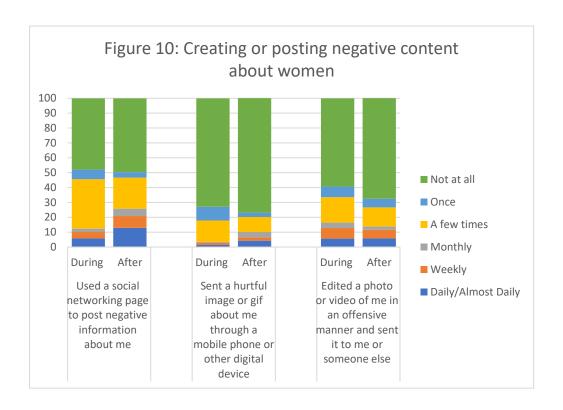
behaviour, so that they can appropriately safeguard women from harm. This will be discussed further in the section on risk assessment (section 7.2).

4.3. Reputational damage

Another way perpetrators of TFDA used technology to cause harm to their intimate partners was by damaging women's reputations. Typically, this involved sharing private information and/or negative anecdotes about women online or via digital networks. These forms of abuse were highly gendered, targeting aspects of women's identities which castigated them as a 'bad mother' or an 'immoral woman'. This maximised the harm caused, precipitating ongoing issues related to having been linked to a stigmatised or 'spoiled' identity (Goffman, 1963). There were several ways perpetrators were able to create these 'spoiled' identities, including procuring and distributing sexually explicit content, and/or creating footage which suggested that women were the primary abusers. Distribution of such content had myriad impacts on women, including job loss, disrupted social networks, and potential intervention from child protection services or the criminal justice system. These forms of abuse served as a means both to trap women in their relationships, and to punish them for leaving.

4.3.1. Creating and sharing defamatory content about women

An easy way perpetrators could elicit reputational damage against their partner was through sharing defamatory content on social media sites or via digital social networks. The chart below (figure ten) shows the percentages of women participating in the survey who had experienced these forms of abuse.



Of those participating in the survey, 41% said that their partner had shared a hurtful image or gif relating to them during their relationship, and 27% said that their partner had edited a photograph or video of them in a manner which caused offence. Post separation, these numbers reduced slightly, but remained at 33%, and 23% respectively.

52% of women participating in the survey stated that their partner had posted negative content about them on social media on at least one occasion during their relationship. This remained fairly stable post separation, with 50% of women stating that their partner had posted negative information about them on social media after they had left the relationship. However, in relation to frequency, those experiencing comments 'daily or almost daily' more than doubled post separation, from 6% to 13%.

These numbers likely reflect the ease of access surrounding social media and digital technologies, with the vast majority of UK adults owning a smart phone and possessing the skills to set up and manage a social media profile (Ofcom, 2023). Little

to no access to women's personal social media accounts or mobile phones is needed, as perpetrators can tap into women's digital networks remotely (couples will often have shared contacts), or they can simply share content in the public domain and wait for it to work its way back (Bailey et al, 2024). Our digital networks are so interconnected that women's (ex)-partners can be fairly confident that, even if the women do not see the content themselves, any content posted will be shared with them via a chain of mutual connections. The semi to fully public nature of social media also provides perpetrators with a platform through which they can attempt to 'flip the script', presenting women as the abuser and themselves as the victim. Commonly known as DARVO (deny, attack, and reverse victim and offender), this tactic results in all reputational damage being shouldered by the victim, whilst the perpetrator is able to garner sympathy and support.

Within the research interviews, professional participants were more likely to discuss perpetrators' use of digital networks to distribute negative content about women than the victim-survivors. These professional interviews shed further light on the process which underpinned such abuse, particularly during and post separation, when perpetrators 'changed the project' from attempting to preserve their relationship, to destroying women for leaving them, and thus challenging their control (Dobash and Dobash, 2015). For example, whilst perpetrators would typically descend into attempts to defame or discredit women (P2, P4, P7, P8, P11, P13), in several cases, women's partners had initially posted positive content about them and their relationship.

"You will get people putting out online things such as, you know, has anyone seen, I miss her, I love her. Please come back, we had a great life together...trying to entice them back." (P4)

As explained by this service manager, a perpetrator's immediate post-separation response might be to try and manipulate their partner into returning to the relationship. This may include making public declarations of love or reminiscing about the good times the couple had shared (P4, P7, P11). When this tactic was unsuccessful, perpetrators would then switch to 'punishing' women for denying their authority and (in their eye's) humiliating them by leaving. This pattern of attempting to draw women back in before displaying aggression was common, and women's partners would regularly become verbally abusive once they realised that they had lost control (P4, P11). This is an overt example of the switch from relationship preservation to (reputational) annihilation of the victim which can occur post-separation, once perpetrators realise that they have lost control over the victim (Dobash and Dobash, 2015).

This pattern of behaviour could be seen in some of the victim-survivors' interviews and was particularly evident in the messages Rebekah received from her ex-husband when she first escaped from him. Initially, Rebekah's husband had appeared apologetic, asking her if she would come back home. Once he realised that she was not going to return, the verbal abuse which had characterised their relationship recommenced. Rebekah's ex-husband also began messaging her family and friends, which drew them into the abuse. This illustrates the collision between domestic abuse and digital society, with digital technologies providing easy access to women's social and support networks (Bailey et al, 2024).

As well as abusing women's family and friends, perpetrators would also recruit their own family and friends to help with the production and distribution of content designed to degrade or discredit women (P2, P7, P11).

"We had a woman in refuge recently, she reported that the perpetrator's mother was slagging her on Facebook, posting photographs stating that she was in refuge, and she was lying about the abuse." (P11)

The interconnectedness of social networks means that women are often unable to hide from, or escape, the abuse (Bailey et al, 2024). Women who are targeted online or via digital technologies may feel permanently excluded from online spaces, fearing that their account will be discovered by their ex-partner or his networks, and that the abuse will subsequently re-commence (P11). This leaves women socially isolated and without the support needed to rebuild their lives and recover from the abuse (Wilcox, 2000). Not having secure access to technology also makes it more difficult for women to search for and engage with services, which will be explored further in chapters 5 and 6.

As mentioned in the introduction to this section, it became apparent during data collection and analysis that the vast majority of reputational harms were targeted at specific, gendered aspects of women's identities. These included women's identities as a 'good' (or 'bad') mother, her identity as a 'virtuous' (or not publicly sexual) woman, and her professional identity. Many of these attacks served to 'reveal' or imply transgression of conservative notions of 'femininity' and 'motherhood' (Stark, 2007), leading to reputational damage and possible public condemnation as an unfit or abusive mother, or a sexually promiscuous woman. Each of these aspects will be explored in turn below.

4.3.2. Constructing women as a 'bad' mother

A central aspect of women's identities regularly targeted by perpetrators was their ability to 'mother' well, with women still facing societal expectations and judgements

around whether they are deemed a 'good' mother (Gaunt, 2013). One specific example provided by a family practitioner regarded the propensity for fathers to publicly criticise mothers for 'denying them access to their children', even when orders were in place to protect the children from their father.

"Especially when there's child protection orders in place, perpetrators putting on Facebook oh so and so has stopped me, and tagging the victim, has stopped me from seeing my children, or kind of shaming her for being such a bad mother...especially around things like Father's Day and Christmas, all I want to do is give her, spend some time with them in the park and I'm being stopped from doing that, that's my basic human right." (P8)

This quote is demonstrative of Katz's (2020) concept of 'admirable fathering', whereby abusive fathers attempt to recast themselves as a caring parent, victimised by their children's mother. This is a clear example of the use of DARVO (denying, attack, and reverse victim and offender), in which the perpetrator and the victim are reversed to fit an alternate narrative (Harsey and Freyd, 2020). A sense of male entitlement underlies the message, suggesting that biologically fathering children should result in a definitive right to have access to those children, regardless of poor behaviour or maltreatment (Katz, 2020). In these cases, women are recast as vindictive women, who would harm their children by denying them access to a loving father, to punish her ex-partner.

Building on this, an additional yet linked form of DARVO utilised by fathers included direct attempts to construct their children's mother as an abusive parent, often through fabricating digital 'evidence' of child maltreatment (P7, P12, P16). Examples provided during interviews included a father assuming the identity of the

children's mother and sending incriminating emails to social services (P11), and several fathers coercing their children to repeat lies about their mother abusing them, which they then filmed and sent to social services (P15). In a third case, a father had recruited his friends to harass his ex-partner by making calls to her, pretending to be from child protection. When his ex-partner worked out that he was behind these calls, he presented at social services with a clean call record, claiming that his ex-partner was making false accusations against him and that he was the victim of her abuse (P7). Such allegations have the potential to 'stain' women's identities (Goffman, 1963), for example by implying that they are abusing their children or 'alienating' the children from their father (Birchall and Choudhry, 2022; Barnett, 2024a), and to influence child protection decisions, possibly resulting in abusive fathers being given custody of their children and mothers having limited or no contact (Barnett, 2024b), despite their innocence.

4.3.3. Sexual coercion and the use of sexual imagery to shame or humiliate

A second specific way perpetrators caused reputational damage to women was through the co-option of technology to sexually control, coerce, and humiliate them. This was a complex area, with some activities initially occurring consensually, only to later be used as part of abuse. In other cases, the entirety of the contact was abusive, right from the creation of the content through to its eventual distribution. Technology-facilitated sexual abuse took multiple forms, including using technology to pressure women to engage in offline sexual activity, coercing women to engage in digital sexual activity, and sharing sexualised or intimate content to manipulate, shame, or humiliate women.

Here, the majority of the data on technology-facilitated sexual abuse has been generated via the survey and the professional interviews. Women who took part in

interviews as victim-survivors rarely mentioned sexual abuse, most likely due to perceived stigma and shame around having been sexually violated (Thompson, 1995; Lever and Eckstein, 2020). One of the victim-survivors, Helen, explained that:

"Stories like that are just embarrassing. I mean I don't mind sharing it here, but who do you tell that to? Because it's just, how do you even describe it? It's just fucked up."

Instead, indirect references were made, such as "he was abusive in every way, all the different types of abuse, that's what he did to me" (Sian - VS4). One of the domestic abuse workers shared that this reflected her experience in practice, where sexual abuse would often be one of the last forms of abuse women disclosed.

"Quite a lot of people are embarrassed about it... particularly the sexual abuse clients, if they do admit it, well not admit it but disclose it, that might happen like several sessions down the line." (P7)

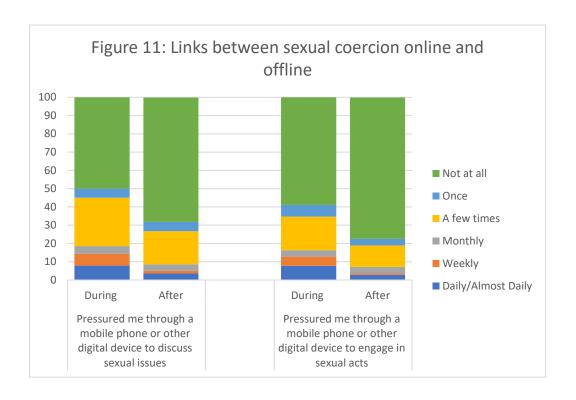
It is possible that the research format of a single interview may have hampered disclosure of sexual abuse, due to the limited opportunity to build trust and rapport between the researcher and the participant. Consequently, it is likely that some or all of the women with lived experience had been subjected to additional forms of technology-facilitated sexual abuse than were disclosed, but they did not feel comfortable or able to share this. It therefore cannot be assumed that the limited qualitative data presented here reflects limited experiences, especially when compared with the high rates of digital sexual abuse and coercion disclosed via the

survey. Rather, it highlights the need for additional research, in which women are given more time to build rapport with the researcher, so that they feel comfortable to share their experiences.

The next few pages will present research findings on various forms of technology-facilitated sexual abuse. Firstly, the links between online and offline sexual abuse will be considered, including the use of digital technologies to coerce women into inperson sexual activity. The use of technology to coerce women into digital sexual activity will then be explored, followed by information on the sending and receiving of intimate images, and women's experiences of having their intimate images shared (image-based sexual abuse).

4.3.4. Links between online and offline sexual abuse

In some relationships, technology was used by perpetrators of TFDA to pressure or coerce their partner into discussing, or even engaging in, in-person sexual activity. The chart below (figure eleven) shows the percentages of women who were pressured to discuss sexual issues with their partner via technology, and those who were pressured to engage in sexual acts via technology.



Exactly half (50%) of the women who participated in the survey said that they had felt pressured to discuss sexual issues with their partner through a mobile phone or other digital device on at least one occasion during their relationship. Post separation this percentage fell, but almost one third of women (32%) continued to receive such communications from their ex-partner. These could potentially have related to sexual activity which took place between the couple during their relationship, however it may also have related to women's sexual activity with new partners' post separation, with some women's ex-partners displaying extensive interest in their subsequent relationships (VS1, VS4, P7).

Women's partners also used digital communications to pressure them to engage in in-person sexual activity. During their relationship, 41% of women said that they had received such messages, with almost a quarter (23%) continuing to receive sexually coercive communications post separation. An example of the ways technology can be used to pressure women to engage in sexual activity came from a victim-survivor, Helen (VS1). Helen's husband had taken sexually explicit images of

her at the beginning of their relationship, which he kept. Later on in their relationship, Helen's husband claimed that their mutual (male) friend had accidently seen the photographs of Helen and had expressed an interest in engaging in a sexual activity with Helen and her husband.

"He created this whole narrative about how our mate had seen the photos, and he got a bit excited, and how would you fancy a threesome...I mean I was so freaked and upset. I was so embarrassed. That was the start of him trying to coerce me into doing threesomes, which I never did, but my god he tried and tried are some to some the photos, and he got a bit excited, and how would you fancy a threesome...I mean I was so freaked and upset. I was so embarrassed. That was the start of him trying to coerce me into doing threesomes, which I never did, but my god he tried and tried and tried and tried and tried and tried...that narrative kept going for about a year."

It was only after her and her husband split that Helen discovered their friend had never seen these photographs, nor had he asked for a threesome.

"Actually, after we split, I was so upset and mortified by the whole thing, and I knew [mutual friend's] girlfriend, and after about a year of being separated I said do you mind asking him if this actually happened? And of course, it didn't."

It is not clear what Helen's husband's intention was. He may have known that she would say no, and solely have been seeking to cause embarrassment and upset. His actions may also have been a genuine attempt to introduce a third party into their relationship, albeit not that specific friend. Whatever his intention, Helen's prolonged belief that their friend had seen intimate images of her had led to perceived reputational damage, which had left her unable to "look him in the face".

Another specific tactic used by women's partners to pressure or coerce them to participate in offline sexual activity involved the sending or sharing of pornographic materials. Women would receive pornographic videos depicting sexual acts which their partner expected them to perform. If women refused, their partners would then threaten to seek these sexual acts from other women. This left women feeling that they had to perform these sexual acts on or with their partner, to prevent infidelity (P16). Perpetrators were able to rely on gendered tropes depicting men as sexually insatiable (Kelly and Aunspach, 2020), and religious-turned-cultural messages that women should fulfil their husbands 'needs' (Palmer, 1997), to coerce their partners into performing sexual acts which they had not freely consented to.

When it came to perpetrators coercing women to participate in in-person sexual activity via technology, professionals expressed particular concern for young people in their mid-to-late teens and early twenties (P14, P15). Their concerns related to the types of sexual activity which these young people were at risk of being pressured or coerced into.

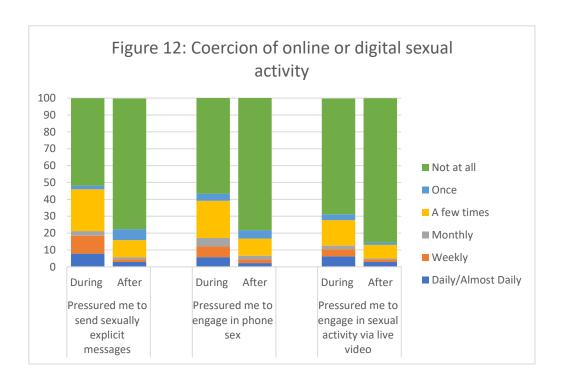
"The abuse that we see with young people is often far more severe sexually than the older age groups in the 20s, 30s and so on. Teenagers are really subjected to some quite vile sexual stuff." (P14)

Professionals linked this to young people's social media, internet, and mobile phone use, with predominantly young men sharing pornographic content with young women in an attempt to normalise more extreme sexual practices. This would sometimes leave young women believing that these acts were widely practiced and to be expected, even if they did not feel comfortable participating in or performing

them, themselves (P16). These concerns are mirrored within the wider literature, with young women facing increasing pressure to look and behave in certain ways sexually (Davies, 2019; Setty, 2019; Contos, 2022). As discussed in the rest of this chapter, the presence of technology also creates further risk, due to the opportunity for perpetrators to film, and potentially distribute, these sexual acts, which women have been pressured or coerced into performing.

4.3.5. Coercing women to engage in digital or online sexual activity

Alongside using technology to pressure or coerce women into participating in offline sexual activity, women's partners also used technology to pressure or coerce women into engaging in digital sexual activity. The chart below (figure twelve) displays the percentages of women who were pressured or coerced into digital sexual activity by their current or ex-partner.



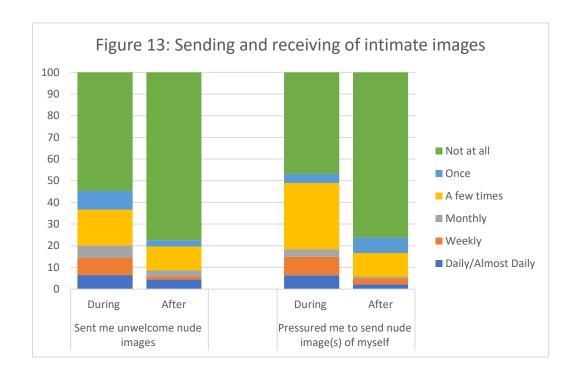
Almost half (48%) of the women participating in the survey had felt pressured to send their partner sexually explicit messages during their relationship. Post separation, just over one in five (22%) had continued to receive such requests. 43% of women had been pressured to engage in phone sex during their relationship, remaining at 22% post separation. Almost one third of the women (31%) said that their partner had coerced them to engage in sexual activity via live video during their relationship, with 14% stating that their partner had continued to exert this pressure on them post separation.

Again, there was very limited discussion of this form of abuse during interviews, possibly due to shame and fear of stigmatisation (see section 3.10.2. and 3.14. for further discussion). Only one example of coerced digital sexual activity was provided by a professional participant, relating to a woman who was forced into sexual interactions with others via her mobile phone. This woman's husband had advertised her phone number as a hotline for sexual services, which meant she regularly received sexualised calls from men she did not know (P4). Whilst we cannot know for sure what the intentions of her abuser were, his actions point to a desire for power and control, and to humiliate his victim, which underscores all forms of sexual abuse (Woodlock, 2017; Freed et al, 2018; Douglas et al, 2019; Al-Alosi, 2020).

4.3.6. Sending and receiving intimate of images

Another way perpetrators of TFDA used digital technologies to sexually abuse their partners centred around the sending and receiving of nude images (also known as image based sexual abuse, henceforth IBSA). Sometimes this involved women's partners sending unwanted, sexually explicit images to them, and on other occasions this meant women being pressured to send sexually explicit images of themselves to

their partner. The chart below (figure thirteen) shows the percentages of women who had either received, or been pressured to send, unwanted nude images.



In the survey, 45% of women said that their partner had sent them an unwanted nude image on at least one occasion during their relationship, and 53% had been pressured to send a nude image of themself to their partner. Post separation, almost a quarter of women continued to experience each form of abuse, with 23% of women receiving unwelcome nude images, and 24% being pressured to send nude images.

Once again, this topic was not discussed freely by interview participants. Whilst women of all ages had experienced this form of abuse, young women were cited by professionals as being particularly vulnerable to pressure around sending intimate images, including being coerced into sending fully nude images before the couple had met in person (P14, P15). This reflects the wider literature, which highlights the ways young women are pressured and coerced into various forms of sexual activity (Davies, 2019; Setty, 2019).

In terms of the receipt of unwanted sexually explicit images, two specific examples were provided by a domestic abuse support worker, both relating to women's expartners (P7). Firstly, women's ex-partners would sometimes send sexually explicit images of themselves to women post-separation, as part of a continuum of stalking behaviours. Secondly, some women's ex-partners would send explicit images or videos of themselves participating in sexual activity with another woman, or with a new partner (VS4). In the first instance, such pictures were assumed to be an attempt to cause distress through threat. In the second instance, such images or videos were presumed to be an attempt to elicit jealousy, and to draw women back into their relationships (P7). Once again, this demonstrates how similar forms of sexual abuse can have different meanings and impacts depending on the stage of the relationship and the intention of the perpetrator (Powell and Henry, 2015 as cited in Markwick et al, 2019). These examples are further demonstrative of Kelly's concept of the 'continuum of experience' (1988), with women being subjected to a range of interconnected abuses throughout their lifetimes.

As well as pressuring women to create and send intimate photographs or videos of themselves, perpetrators were also involved in the creation of intimate content by taking photographs or recording video footage of their partner, often during their relationship. Sometimes these photographs or videos were created with the knowledge and consent of the women, possibly before they knew the relationship was abusive (P2, P5, P7). However, within the context of domestic abuse, these materials were often procured through threat or coercion (VS1), and for some women, their intimate images were obtained by their partner without their knowledge or consent. This was particularly common where smart home technologies were involved in the abuse, with covert surveillance extending into women's bedrooms and bathrooms. One of the victim-survivors who participated in this research shared that, alongside

observing her in real time, her partner had used their pet camera to take screenshots of her during private moments, including when she was dressing and undressing.

"I managed to grab his phone for 10 seconds and there was a folder called 'Jenn'. There were photos of me in all different outfits. Some in my underwear.

Loads when I was getting changed." (Jenn – VS2)

The fact that the pet cameras were 'hidden in plain sight' with a legitimate purpose for being there meant that Jenn had not perceived them as a threat and had continued about her daily life as normal. The cameras had enabled Jenn's partner to obtain images of her without much difficulty, and without her consent. Upon discovering their existence Jenn had asked her partner to delete the photographs, but she was not sure whether he had. Consequently, she now lives with the uncertainty of not knowing whether or when they may resurface online in the future. For women who know that their images are in the hands of dangerous men, the anticipation of potential humiliation and perceived reputational damage can be just as harmful as if the images were actually shared (Powell et al, 2018; McGlynn et al, 2021).

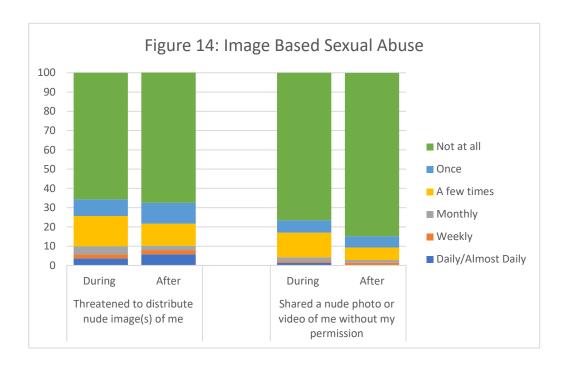
4.3.7. Threatening to or actually sharing women's images

Once women's partners had procured intimate images of them, either consensually, through coercion, or through deception, some would then go on to threaten to or actually share these images with others (this was historically referred to as revenge porn but is now known as image based sexual abuse or ISBA). ISBA is a relatively new form of abuse, which has become increasingly easy for abusers to perpetrators as technology has developed (VS1).

"It is something that wouldn't naturally happen in any other capacity. Without technology, it would be rare. Like you're not going to develop a picture of yourself, give it to somebody, and without technology how are you going to spread it? I think technology allows us to contact thousands of people at once, you know, post stuff where we want to post it for the world to see. Make it public. Embarrass people." (P6)

As this quote makes clear, the networked nature of digital society means that perpetrators can distribute intimate images swiftly and on a significant scale, both amongst people women know, and total strangers (Dragiewicz et al, 2018; Bailey et al, 2024). Whilst non-consensual distribution of intimate images was made a criminal offence under section 33 of the Criminal Justice and Courts Act 2015, and threatening to distribute intimate materials without consent was made a criminal offence under the Domestic Abuse Act 2021, only 4% of threatened or completed incidents of image based sexual abuse (IBSA) reported to the police end in the suspect being charged (Refuge, 2023).

Women participating in survey were asked about their own experiences of threatened or completed ISBA, and the chart below (figure fourteen) shows how they responded.



Amongst survey participants, 34% said that their partner had threatened to distribute a nude image of them on at least one occasion whilst they were still in a relationship. This remained consistent post separation, with 33% being threatened with having their intimate images shared. Some women's partners had gone on to carry out this threat, with almost a quarter (23%) stating that their partner had distributed a nude image or video of them, without their permission, during their relationship. This number did fall post separation, however 15% of women had still had their intimate images shared with others without their consent after their relationship ended.

The fact that IBSA appeared more prevalent during women's relationships than post separation was unexpected, with IBSA having previously been conceptualised as 'revenge porn', which was seemingly perpetrated in reaction to a relationship ending. Turning to the literature, Cuomo and Dolci (2022) explain that IBSA may be present during a relationship as a means to "keep a survivor in a relationship". Similarly, Henry et al (2020) identified IBSA as a form of entrapment and degradation,

used as part of wider coercive and controlling behaviours to trap within abusive relationships.

That the percentage of women whose partners had shared their intimate images fell post separation also suggests there may be different motivations behind IBSA for different offenders. For some, threatening to or going ahead with sharing women's intimate images may represent an attempt at coercing or manipulating them to remain in the relationship, as documented by the literature, and suggested by three domestic abuse support workers (P2, P8, P9). For others, including those who shared women's intimate images post separation, motivations may have moved from ones of coercion and manipulation to ones of humiliation and destruction (Dobash and Dobash, 2015; Cuomo and Dolci, 2022; Henry et al, 2020). This was the experience of women discussed by three more professionals, who's images had been shared with their parents, their wider families, and their employers after they left their abuser (P8, P11, P13). It is also possible that women were not aware that images of them existed and had been shared post-separation (McGlynn et al, 2021), reducing the percentage for this form of abuse.

Several professionals working in the domestic abuse sector cited IBSA as a particularly prevalent form of abuse amongst those on their caseloads (P1, P3, P4, P7, P11, P14, P16), and a number of specific, anonymised case examples were provided. In some cases, women's photographs or videos were threatened with being, or were actually uploaded onto pornographic websites (P16). For these women the audience was unknown, but potentially substantial. For other women, their intimate images and videos were shared with smaller audiences but were targeted at individuals or groups that the women had a personal connection with. This included women's partners uploading images or videos onto closed social media networks (P1, P4, P5, P8, P12), and threatening to send images or videos to other parents or teachers at their children's schools (P6, P7). Another woman's husband had used her

intimate images to set up a fake escorting profile, which he then sent to her father (P11). For these women, humiliation and the perceived reputational damage is deeply personal, with women having described such abuses as "torture for the soul" (McGlynn et al, 2021, pp.557).

As well as sharing images with social contacts, perpetrators would also target women's employers and colleagues during IBSA (P8, P11, P13). Though he never went through with it, Helen's husband had threatened to send sexually explicit images of her to both her current workplace, and another company.

"He'd threatened that he was going to send nudes to my boss. He was going to send nudes to the rival company... He was going to ruin my reputation...it was like, have you always planned this?" (Helen – VS1)

Whilst Helen's husband did not send the photographs, she knew and lived in fear of the potential consequences, had he chosen to do so. In another case, shared by a helpline worker, a woman's husband had actually shared intimate footage of her with her colleagues.

"A woman has called the perpetrator's bluff and he's gone ahead and done what he said he was going to do...in the instance that I'm thinking of the guy had flooded the woman's workplace with inappropriate videos...she said I just got my handbag and left...the fine really didn't reflect the damage that he had caused to her." (P9)

By targeting women's places of employment, perpetrators are sending a very clear, gendered message about women's place in the world. Those who perpetrate domestic abuse, and in particular coercive control, will often have rigid ideas about gender roles, and a belief that women belong in the home (Stark, 2007). For women whose intimate images have been shared with managers and colleagues, returning to work can feel impossible. The perceived reputational harm and humiliation are tantamount to professional annihilation, with women feeling excluded from their workplace due to stigmatisation and shame. Such acts can have long term economic impacts for women, with the potential for mental health difficulties resulting from the abuse preventing women from returning to the same industry or returning to work at all (Huber, 2023).

4.3.8. Damaging women's professional reputations

Women's professional reputations were a central aspect of women's identities which their current or ex-partners would attempt to destroy. By targeting women's employment, perpetrators could reduce their financial autonomy, remove a place of safety, and confine women to the home (Stark, 2007; Sharp-Jeffs, 2022). This could prevent women from having the financial means to escape an abusive relationship or force them to return to their abuser post-separation.

There were many ways perpetrators could damage women's reputation at work, and this was not restricted to sending intimate images or videos (as discussed in the previous section). For example, Jenn's partner would call her before important meetings, threatening to make her homeless. This would, understandably, unsettle Jenn, and cause her to underperform at work. Jenn's partner would also bombard her with contact throughout the day, both on her work phone and her own phone. This too was noticed by her managers, and Jenn felt that, had she not left her partner, she

may have lost her job. Other ways perpetrators threatened to, or actually damaged their partners' professional reputations included threatening to send evidence of prior drug taking, restricting their freedom to appear online, and cancelling online bookings for the victim's business.

In some cases, perpetrators would also contact women's places of work to make counter-allegations against them. This ranged from insinuating that victim had also displayed abusive behaviours as a form of 'mutual abuse', to identifying women as being the primary or sole perpetrator of abuse (VS4, P8). Making counter-allegations to women's workplaces was particularly common if women worked in the domestic abuse sector, or in another regulated industry, where allegations of abuse could jeopardise their continued employment.

"I think the reason he logged into my LinkedIn was to find out where I was working so he could make trouble for me... he actually reported himself to the very organisation that I worked for as a victim of domestic abuse and said that I was the perpetrator. So, he went through our assessment team as reporting himself as a victim. It literally killed me." (Sian – VS4)

False accusations against women who work in the domestic abuse sector, or another regulated industry, have the potential to cause significant harm to women's professional reputations, and their continued employment. Whilst investigations should identify that there is no evidence of abuse being perpetrated by the victim, technology means there is now a possibility that perpetrators could present falsified or fabricated evidence to back up their claims (this is discussed further in the next section). Even if the perpetrators allegations are deemed unfounded, women may still

have to live with suspicion and stained reputations, which may affect their continued employment and professional development longer term.

4.3.9. Fabricated and falsified content

Developments in technology mean that perpetrators can now create digital 'evidence' of misdemeanours being carried out by women, even where these events have not actually occurred, supporting their attempts to flip the narrative around who is abusing whom. Examples of issues relating to fabrication have been repeatedly raised throughout this chapter, particularly across section 4.3.

Video clips of women reacting to being abused, supposedly evidencing that they are the abuser, were cited by one domestic abuse worker as a common feature amongst those accessing their service.

"That happens quite a lot. I'd say roughly 50% of clients will say oh they've got all these clips, and they'll show them to the kids, they'll show them to family members, they've shown them to schools and CAFCASS and you know, and the victim is then...one step back, because they look like this perpetrator." (P7)

Perpetrators would also draw their children into attempts to create fabricated 'evidence' that women were the primary or sole abuser. For example, one domestic abuse support worker described a case where the father had encouraged the children to film their mother whilst she was distressed.

"He was encouraging the boys to record mum when she was getting distressed...on one occasion he was saying take this knife, go on then, stab me, stab me, and then she's getting distraught and he's saying to the children, the two boys get your phone and record what's happening, because he'd taken her phone, the husband had taken her phone and she had all her evidence on her phone, so she needed it, and so she went in, he's got his hand in his pocket, she went in his pocket and his trousers ripped when she was trying to get it back. That was the bit that was recorded." (P16)

Thankfully, on this occasion, the police officers involved in the case recognised that the mother and the two teenage children were the victims of abuse by the father. However, this domestic abuse support worker also explained that, in her experience, this level of awareness from professionals was a rarity. Concerns were raised about the level of understanding amongst police officers when it came to domestic abuse, especially their ability to recognise 'reactive abuse' (when victims react to being abused by engaging in behaviours which may on the surface appear abusive themselves). If perpetrators filmed these reactions, victims could end up being arrested, and potentially even prosecuted. Fabricated evidence such as this could also affected child custody proceedings, with abusive fathers being able to convince the authorities that the mother is in fact the unsafe parent (as discussed in section 2.3).

Finally, interviews with professionals in the domestic abuse sector also highlighted the danger of an emergent issue known as deepfake pornography (P2, P5). Deepfake pornography involves the creation of fake imagery or video footage, often involving a person's face being superimposed onto somebody else's body. Two professionals spoke about women they had personally worked with who had been the subject of

deepfake pornography. In one case, a woman's face had been superimposed onto a pornographic image of another women (P5). In another case, a woman's husband had edited an intimate video of the couple to imply that she was engaged in an incestuous relationship.

"I had one particular person in the South Asian community, and what this perpetrator did was they made a personal video...he put her family member's face over his [her husband's] face and then decided to post it to all her family members on social media. Can you imagine the shame...for him to degrade her by insinuating she's having sex with her family member." (P2)

Whilst anyone can be subjected to and impacted by deepfake pornography, as demonstrated by this quote, some women are particularly vulnerable to additional layers of shame and may at heightened risk of connected harms. Becoming the target of ISBA can be acutely dangerous for women from communities who ascribe to gendered notions around family 'honour' (P1, P2), and they may become the victim of so-called 'honour-violence' for their perceived 'transgression' (Gorar, 2021). This said, deepfake images and footage are an increasing threat for all women (Powell et al, 2022), with there never needing to have been any original images or footage for women to be targeted. As these images are created digitally using AI (Flynn et al, 2022), there is no way for women to prevent his from happening to them.

4.3.10. Summary

To summarise, there are multiple ways that perpetrators can produce and/or share content through digital networks in order to defame and cause reputational harm to

their partners. This form of abuse is highly gendered, with perpetrators generally targeting specific aspects of women's identities which are already 'regulated' by social attitudes and patriarchal standards. Women's identities as a mother, and as a 'virtuous' (non-sexualised) woman, are most commonly targeted.

In some cases, perpetrators may use genuine content, including intimate images or video footage which has been obtained with women's consent, through coercion, or by deception, to harm their partner. However, the advent of digital technologies has made it increasingly easy for perpetrators to fabricate or falsify images or video footage of women, including intimate content, or content which supports the perpetrators' wider attempts to reverse victim and offender. Women are increasingly being subjected to deepfake pornography, as perpetrators can create realistic images or video footage of women without an interaction needing to have actually happened (Flynn et al, 2022). This makes it impossible for women to protect themselves from such attacks, and, as discussed throughout this chapter, the consequences of such attacks on women's mental health, personal relationships, and employment, can be far reaching and long lasting.

As mentioned within this section, there are increasing concerns around the realistic nature of some fabricated 'evidence', and professionals ability to identify this. Such developments will have particular implications for criminal and family court decisions, an issue which is explored further in section 8.2.

5. Establishing contact with services

Establishing contact with services is one of the most important, yet most dangerous, times for women wanting to leave an abusive relationship. Being able to access specialist support is crucial, as leaving without risk management or safety planning can increase the chances that women will be harmed or killed by their partner (Monckton Smith, 2020). However, women must also find a way to establish contact with services without their partner knowing, as their partner becoming aware that they are considering leaving signifies a challenge to their power and control, placing women in significant danger (Matthews et al, 2017; Monckton Smith, 2020; Tseng et al, 2021). For women who are under digital surveillance from their partner, attempts to establish contact with services can be even more fraught with danger, leaving women with limited opportunities to reach out and engage with support.

Many specialist services now require referrals and (at least initial) contact to take place remotely, facilitated by technology (Refuge, 2024a; Women's Aid, 2024b). Having the option to contact services this way can be beneficial, particularly for groups who may find it more difficult to attend services in person, such as those living in rural or remote locations or those with caring responsibilities (P3, P6, P7, P11, P15, P16). However, for women subjected to digital monitoring and control by an intimate partner, finding the time and the privacy to identify and then reach out to relevant services may prove difficult, or in more extreme cases, insurmountable.

This chapter begins by considering the barriers women faced when they wanted to contact services but felt unable to. This information could help with the identification of alternative routes into services for women under the highest levels of digital control. The chapter will then discuss the routes into services used by women who were under some level of digital control, but who had managed to navigate around this to establish contact. Again, knowing how some women had managed this may help us

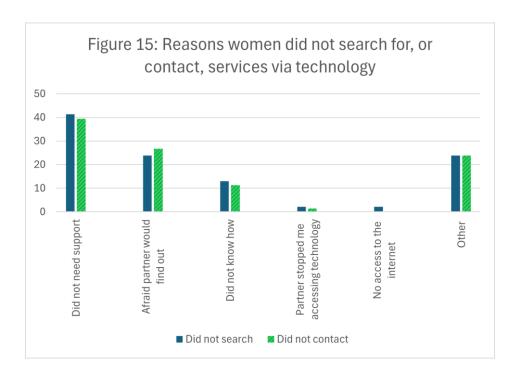
to create pathways to support which are accessible for a greater number of women. Finally, the chapter will conclude with reflections from professional participants on the benefits and drawbacks of digital service provision, from both a practical and financial viewpoint.

5.1. What prevents women from contacting services?

As demonstrated within the first findings chapter (see section 4.1), digital surveillance in the context of domestic abuse is common. More than a third of survey participants, 38%, had their digital communications monitored by their partner 'daily or almost daily', rising to 89% on at least one occasion. More than a quarter, 29%, had been forced to disclose digital interactions 'daily or almost daily', rising to 80% on at least one occasion. For these women, accessing services can be incredibly challenging, the reasons for which are explored in further detail below.

Within the survey, women were asked whether they had ever used digital technologies to either search for or contact services. Whilst two thirds (66%) of participants stated that they had searched for support services online, this did not necessarily translate into making contact, with just under half (49%) having accessed support. This means that one third of women (33%) either did not need, or were unable, to research support options online, and that just over half (51%) felt that they did not need, or were unable, to reach out to services for support.

To better understand the barriers women were facing, survey respondents who indicated that they had not searched for or accessed services were asked why this was the case. There were several reasons that women had been unable to do so, which are set out in the table below.



The most common reason that women had not looked for or engaged with services was because they felt they did not need professional support (41% and 39% respectively). Whilst these women may have benefitted from professional support, it is their right to decline this support, and therefore this group will not be considered further. However, the second most common reason that women had not looked for or engaged with services was because they were afraid their partner would find out. Almost one quarter of the women who had not looked for support (24%), and slightly more than a quarter of the women who had not reached out for support (27%), named this as a reason. These findings indicate that a link does exist between being subjected to TFDA and being prevented from accessing specialist support to exit a relationship safely.

Whilst it is possible that some of the women's fears were a result of gaslighting, where perpetrators had managed to convince their partner that they had greater access to their accounts and devices than in reality (Douglas et al, 2019; Tanczer et al, 2021), the legitimacy of these women's concerns is also supported by earlier

findings, with 89% of survey participants having had their digital communications checked by their partner on at least one occasion. 68% of the women participating in the survey had been forced or coerced into handing passwords over to their partner, and almost three quarters (72%) stated that their partner had been able to log on to their personal devices without their permission at least once. Alongside manually checking women's devices, women's partners may be able to pair women's devices with their own (VS5, P2, P9), or install spyware or keylogging software onto their devices (VS1, P1, P2, P5, P8, P9, P13, P14, P15). One service manager summarised that perpetrators are "very good at reducing women's ability to ask for help" (P11), and in the most extreme cases, this digital surveillance could prevent women from having any contact with services whilst they were still in the relationship with their abuser.

Examples of women being unable to look for or contact services were present within the interview data. For example, Rebekah shared that her husband would carry out regular, randomised 'spot checks' of her mobile phone, which left her afraid to look for or reach out to services in case a 'spot check' should occur. Her husband would also revoke access to her mobile phone following acts of abuse, leaving her physically unable to call for help. The couple lived in a rural location, which made access to technology even more important, compounding Rebekah's isolation.

"They always say go and phone someone to help you... I don't know how people do that because you don't have access to your phone. So, call for help, who must I call for help? Do they not realise how sensitive they [perpetrators] are to anyone being involved? Even after [acts of abuse] they are very sensitive around what you are doing, so you do not have freedom to do all these things." (Rebekah – VS3)

The level of control Rebekah's husband exerted over her, both physically and digitally, meant that she felt unable to contact the police or domestic abuse services whilst she was still in the relationship. This meant that Rebekah was unable to plan a managed separation, during which she had specialist support, risk assessment, and safety planning. Instead, Rebekah was forced to flee during a sustained, extremely violent assault, which she had believed would result in her death. The fact that Rebekah was able to escape was pure chance, and other women may not have the same outcome. That Rebekah was unable to access services due to her perpetrators' actions is unacceptable, and alternative routes for women under extreme digital surveillance must be established to prevent women from being killed.

Even when women do manage to get a referral through to services, perhaps through another professional or via family and friends, services may struggle to initiate direct contact with women due to digital monitoring. Once again, this could prevent women from receiving the appropriate support to end their relationships safely.

"We have women that, it states on the referral 'do not text, do not leave voice messages, perpetrator checks phone'. So, we would have lots of clients whose husbands, partners, boyfriends whatever would check their phones." (P5)

The fact that some women were being digitally "policed every minute of the day" (P5) created significant limitations when it came to contact. One domestic abuse support worker highlighted a case in which she had ultimately been unable to engage with the client, who had no personal email address, no independent access to a telephone, and was rarely allowed to leave the house unaccompanied.

"The only way we could contact is by telephone, and she can't take that call. She can't make a call, because he's monitoring and controlling every aspect of her life... we can't reach out to that lady." (P5)

Like Rebekah, this client was unable to access digitised services whilst still in the relationship. Unlike Rebekah, this client was still in the abusive relationship at the time of the interview, and services were at an impasse surrounding attempts to make contact. Opportunities for this women to leave safely had been severely diminished, and there was no plan in place to navigate around the imposed constraints.

Cases such as these had led one support worker to question whether the sectors move towards primarily digital contact was excluding women subjected to TFDA.

"Just that constant struggle of... because we're talking about tech abuse and the different ways people can do things, and we're literally just online, so are we part of the problem?" (P10)

Professionals noted that the move towards digital contact had been accelerated by the pandemic, before which more face-to-face and drop-in options had been available (P5, P16). In-person options may appear to be a panacea, however, increases in digital surveillance had also made it more difficult for women to visit services in person. In the survey, 64% of participants said that their partner had cyberstalked them during their relationship, enabling their partner to monitor their location at all times.

"That comes up you know...I can't meet you because he knows where I am, and even if I switch it [location tracking] off that is going to make things worse for me." (P3)

Consequently, providing face-to-face options may not help women to access to services either, as women may be tracked by their partner, who will then see that they have accessed services. Turning off location settings could put women in more danger by increasing the perpetrators paranoia and challenging their control (Tseng et al, 2021; Bailey et al, 2024; Childs et al, 2024). This may then result in further abuse or an escalation in the abuse, placing women at even greater risk of harm (Monckton Smith, 2020; Tseng et al, 2021; Stephenson et al, 2023). As such, in-person service provision must be managed with extreme caution, which will be discussed further in sections 6.1, 6.2 and 8.3.

With regard to searching for and accessing services, women also reported issues with not knowing how to search for support services (13%), or how to use the online support options (11%), which may reflect women's lower levels of confidence surrounding technology (Cockburn and Ormerod, 1993; Wajcman, 2006; Douglas et al, 2019). In the survey, almost one quarter (24%) of participants stated that they did not feel confident using new technologies, with slightly more than a quarter (28%) indicating that they usually asked for support when using technologies for the first time. This may make women who would usually rely on their partner for technical support more vulnerable when they want or need to access digitised support services for domestic abuse. These women require spaces where they can go to receive technical support without their partner becoming aware.

Alongside issues with digital literacy, women's hesitancy to research or access online services also seemed to reflect an uncertainty around what they are looking

for. Through the interviews and open text boxes within the survey, it became apparent that women were not always sure what constituted domestic abuse, particularly when it came to TFDA. Twelve of the survey respondents (S7, S9, S19, S26, S58, S59, S61, S64, S80, S91, S111, S113), and all six of the lived experience interview participants, felt that they had not possessed the knowledge required to identify their experiences as 'domestic abuse' whilst they were still in the relationship. Rather, they had often interpreted their experiences as 'relationship difficulties', sometimes viewing themselves as co-participants, or even instigators of the abuse.

"I didn't realise that what was happening was wrong. I felt like everything was my fault, so I dealt with it." (S7)

This paucity of knowledge around domestic abuse, especially when it comes to TFDA, was also referenced by several of the domestic abuse support workers (P3, P4, P6, P7, P10, P12, P14, P15). In particular, professional participants discussed how bombardment, harassment, monitoring, and stalking would often be minimised or dismissed by women (P4, P7, P10). Rather than seeing these as targeted actions, the ubiquity of technology would lead women to rationalise that "it's just because it's so easy to follow me on every account they are" (P10), or that constant calls or text messages were their partner "just being nice and checking up on me" (P4). The difficulties women faced in recognising abusive behaviours were compounded by their unfamiliarity with legal definitions, with new legislation not always reaching the general population (Lagdon et al, 2023). Professionals stated that women were not always aware a particular behaviour or set of behaviours was now a criminal offence, particularly when it came to coercive control (P6, P7). This added to women's propensity to dismiss behaviours as 'not that bad', as they lacked access to concepts

and terminology which may have helped them to make sense of their experiences. This resonates with what Fricker (2007) termed hermeneutical injustice, whereby vulnerable and marginalised groups are denied the necessary resources to interpret and communicate their experiences clearly.

Whilst any woman might struggle to identify abuse, young women were identified by professionals as being particularly unlikely to recognise TFDA, due to age-related expectations and cultural norms surrounding technology and information sharing (P5 and P14)

"I think there's a lot of stuff that's passed off by young people as care at the beginning, like putting apps on their stuff so they can find each other... they're not recognising that actually all of this is the red flags for control starting...and then they don't have confidence to say no to that or to come away from that... I see a lot of stuff that I would consider abuse that is normal, they think that's okay." (P14)

Concerns raised by these professionals are backed up by the literature, which also cites young women as being particularly vulnerable to TFDA (Dragiewicz et al, 2018; Stonard, 2019).

However, whist younger women may be more vulnerable, recognising TFDA could be difficult for women of any age, owing to unclear boundaries around what is 'healthy', 'unhealthy', or abusive when it comes to digital technologies (Maher et al, 2017; Harris, 2018; Lever and Eckstein, 2020; Messing et al, 2020). For example, gifting, or the handing down of devices, was mentioned by several of the professional

participants as a seemingly 'normal' part of a relationship (VS4, P1, P2, P4, P5, P8, P9).

"Often with cases, you know in relationships people will buy you a phone, and oh it's a nice thing, they bought me a brand-new iPhone or whatever, and its seen as a positive. But actually, you don't know what it comes with." (P1)

The quote above is echoed in Sian's experiences with her husband. Sian had initially been excited when her new partner gifted her a mobile phone early on in their relationship, and it was only much later that she came to recognise how the 'gift' had enabled him to wield an additional level of control over her, as she felt beholden to allow him access to it. Sian had not known much about domestic abuse prior to her marriage, and the realisation that she was experiencing abuse only came when she typed how she was feeling into a search engine.

"I'd never heard the words domestic abuse before. I had no idea about perpetrators and victims...I think I actually Googled 'my husband is scaring me', because I didn't know about, still then I didn't recognise it was domestic abuse."

(Sian - VS4)

For other participants, a broader understanding of what domestic abuse is had been present, but they had not had access to information which might have enabled them to recognise certain technology-facilitated behaviours as abuse. For Jenn, the realisation that she had been subjected to TFDA only came when she saw the advertisements for this research, despite the fact that she had accessed counselling and mental health services for domestic abuse previously.

"I saw your poster and I'd not even really thought about the level of technology...

I was like well they haven't filmed beating me up or text me really abusive comments. Like there wasn't anything hugely obvious, or like posting pictures of me or anything, and I was like I wonder if actually this is even technological abuse?" (Jenn – VS2)

Had Sian or Jenn known about TFDA prior to their relationships, there is a possibility that they might have identified their situations much sooner. This may have given them the confidence to access services prior to exiting their relationships, meaning they could have had specialist support during an emotionally difficult time. Whilst neither Sian or Jenn had felt they were physically at risk from their partners, it is easy to see how some women could be placed at an increased risk of harm if they do not recognise themselves as being eligible for support and therefore do not reach out to services. Professional participants highlighted particular concerns around digital stalking behaviours, which as previously mentioned (in section 5.1.), were not always recognised by women as constituting abuse (P4, P6, P8, P10, P13). Stalking is a well-known high-risk indicator for serious harm or homicide (Monckton Smith, 2020; Todd et al, 2021), and consequently women's attempts to leave without risk assessment or risk management could result in a dangerous or fatal outcome.

Alongside the risk of homicide, concerns about women's ability to recognise TFDA were also raised in relation to the longevity and extremity of abuse. One professional shared that women who accessed their organisation often minimised their experiences with TFDA because they conceptualised domestic abuse as involving

more overt acts of violence, such as physical or sexual abuse, rather than emotional abuse or coercive and controlling behaviour. Again, the blurred boundaries around what is acceptable or unacceptable in digital spaces came into play (Maher et al, 2017; Harris, 2018; Lever and Eckstein, 2020; Messing et al, 2020), leading women to explain away their current or ex-partners' behaviours. As such, it often took abuse escalating to physical violence before women contacted services.

"We offer the Freedom Programme here. People will have been abused and not realise they've been abused for years. You get women who come, and they've been in a relationship ten years, and in the last two years physical abuse started, and then they do the Freedom Programme, and they go 'oh my gosh, I've actually been being abused for the last ten years, I just didn't realise that that was coercive behaviour or that was controlling or monitoring'." (P4)

For these women, not being taught how to recognise TFDA before the abuse escalated to physical violence (if it did), meant that women were living with the physical and psychological impacts of violence which may not have occurred if they had been supported to end the relationship sooner, and they were being placed at increased levels of risk for serious harm or homicide when the abuse did escalate (Monckton Smith, 2020). Education about TFDA is therefore both a public health issue and a human rights issue, with women needing access to the information which may prevent them from enduring future bodily harms.

To summarise, lack of access to private and secure technology, lack of confidence using technology, and low levels of public awareness surrounding TFDA, means that some women are not reaching out to services until their risk levels have increased, either following the appearance of physical violence or through their attempts to leave

without support. Strategies are needed to help women under sustained digital surveillance access services, and public education is needed to support women to identify TFDA whilst it is occurring. It is only then that some of the most at-risk women can be properly supported, contributing towards the government's strategy to reduce domestic-abuse related deaths (Home Office, 2022d).

However, whilst there is a clear need for increased knowledge around TFDA, professionals participating in this research did highlight concerns about the potential dangers of sharing too much information publicly. Technology is advancing rapidly, and organisations feared that public information campaigns may 'give perpetrators ideas', if they were not using specific tactics already.

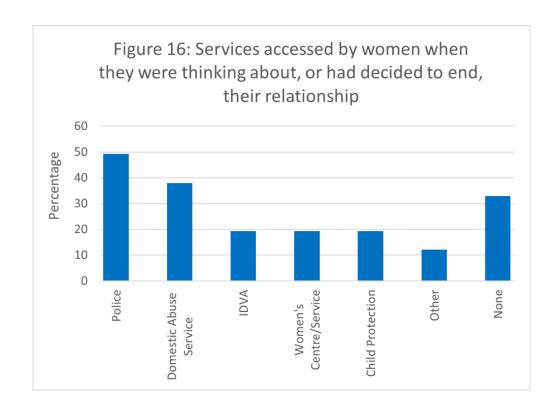
"If women don't think stalking is ever going to happen to them but they're actually dealing with stalking we want to give them that information to make an informed decision and actually realise, but then you don't want people [perpetrators] to get ideas." (P10)

Whilst this may be a concern, as previously discussed (in section 4.1.5.), motivated offenders are likely to continue 'trying things out' until they find a way to accomplish whatever it is they are wanting to achieve. Perpetrators can also access forums which detail how to use apps and devices to facilitate abuse, or customer services may be willing to advise them on using apps or devices for abuse (Chatterjee et al, 2018; Bellini et al, 2020). Providing women with lifesaving information on TFDA is of the utmost importance (Bailey et al, 2024), and whilst providing this information in the public domain may speed up the process of apps and devices being co-opted for abuse, it is likely that this process would have occurred anyway, given time (P6, Bellini et al, 2020 and 2021). Steps can be taken to mitigate the risk, for example by

withholding information on how apps or devices can be configured for abuse (P10), but withholding all information only really disadvantages victim-survivors, through damaging their ability to recognise and escape abuse.

5.2. Which services women contact

Women participating in this research had accessed several different services whilst they were thinking about, or had decided to end, their relationship. The chart below (figure 16), sets out which services women completing the survey were in contact with, alongside the percentage who were not in contact with any.



Amongst those who had accessed services, almost half (49%) had interacted with the police. More than a third (38%) had been in contact with specialist domestic abuse services, and almost one in five (19%) had been in contact with either an Independent

Domestic Violence Advocate (IDVA), a Women's Centre, or child protection services. Other services listed by women in the free text box included their local council, solicitors, NHS services, counselling services, and peer support groups. During interview, one participant added that she had been in contact with the charity Surviving Economic Abuse, Paladin National Stalking Advocacy Service, and the Cyber Helpline (VS5). These responses demonstrate the diversity of statutory and non-statutory bodies, and specialist and non-specialist professionals', that women will encounter throughout the process of leaving an abusive relationship.

As well as understanding which organisations women came into contact with, it is also useful to think about the order that women encounter these services in. According to research by the Domestic Abuse Commissioner (2021), women are most likely to disclose to a healthcare professional in the first instance, followed by the police, social services, legal professionals, and then domestic abuse services. This pattern was reflected in the interview data from this study, where it became apparent that initial contact for women with lived experience was not with specialist domestic abuse services. For three of the women, first point of contact was with health and counselling services, owing to the emotional and physical impacts of the abuse. In some cases, women had reached out for health care and counselling themselves (VS3, VS4). In others, they had been encouraged to access support by their partner, as part of abuse tactics designed to discredit them as being 'mentally unwell' (V2).

Whilst some of the women had had a positive experience with health care and counselling services (VS3), it was noted by Sian that NHS services did not always recognise TFDA or refer women into specialist services.

"I was referred to a counsellor...and it wasn't until we got to the tenth session that I suppose I had an epiphany moment and just stopped lying about how

fabulous my life was. I told her the reality of it, and I had some more sessions with her, but she didn't signpost me to any kind of domestic abuse organisation.

Really, thinking back, she should have." (Sian – VS4)

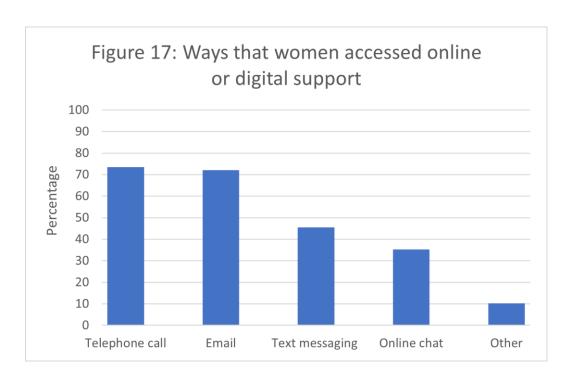
This missed opportunity delayed Sian's engagement with specialist support for domestic abuse. Several opportunities were missed for women to be offered support or referred into services, with interview participants coming into contact with between two and seven non-specialist services during their relationship, or in the period immediately post separation. Alongside healthcare and counselling services, these included women's employers, their local councils, Citizen's Advice, addiction services, marriage consultants, and legal services.

Whilst these are the journeys of only six women, they demonstrate the importance of non-specialist frontline and public facing professionals having the knowledge and skillset to ask questions which will identify TFDA. Where appropriate, and with the woman's consent, this should then be followed up with signposting and/or a referral into specialist domestic abuse services. For women who face barriers to identifying and contacting support services themselves, non-specialist front line professionals could provide a link through which referrals and possibly contact could be established and subsequently co-ordinated. For women under high levels of digital surveillance, missed opportunities such as these could result in significant delays to receipt of help, prolonging their exposure to abuse.

5.3. How women establish contact with services, and which technologies women and services used to interact with one another

Despite the barriers some women faced to identifying and accessing support, others had found ways to navigate around these to establish contact with services. By examining how these women established and maintained contact with services, we can better understand how services might be adapted to support all women, including those under more comprehensive digital surveillance.

When women wanted to contact services, there were several different formats through which they could do this. Mainstream options include telephone, email, text messaging, or the use of online chat functions. SignVideo (BSL) is also available at a small number of services (Refuge, 2024a; Women's Aid, 2024b), though no one who participated in this research had used this option, which is a limitation of the study. The chart below, figure 17, sets out how women who participated in the survey had contacted services.



Of the 68 women who had accessed support via technology, the most popular method of communication was telephone calls (74%), closely followed by email (72%). Almost half had used text messaging provisions (46%), and just over a third had accessed instant webchat functions (35%). These findings demonstrate that the full range of options are utilised by women, albeit to varying degrees (through it is worth noting that this data may partially reflect availability, with fewer services offering text messaging and online chat options). Nevertheless, offering a variety of methods for making contact increases the likelihood that women will be able to make contact.

Women's preferences for specific methods of communication were shaped by their individual circumstances, which depended on a combination of which technologies they had access to, which technologies their partner monitored, and the amount of social independence they were permitted. Women and services often had to be creative in their use of technology, adjusting methods of communication to fit around the constraints created by their perpetrator.

Here, technologies have been split into audible (telephone calls), and silent (email, text messages, and webchat) methods of communication, to allow for an exploration of the specific advantages of spoken and written communications, and how women and services negotiated their way around obstacles to allow each form of communication could go ahead.

5.3.1. Telephone calls

The most common way that women accessed services was via telephone calls, with three quarters (74%) of survey respondents who had engaged with services indicating that they had spoken to professionals this way. Telephone calls may be popular because they can easily be made away from the home, and indeed they do

not have to be made from women's own devices if they are concerned about digital monitoring.

"It's safer for them...they can make that call in the toilet at work or they can find a wee [small] quiet place to phone us." (P14)

Flexibility in location and device use opened up support options for women who might be monitored at home, but who are still able to go to work or to run errands independently. Their ability to call from an alternative device meant that women could make initial contact with services, even if their partner checks or has compromised their personal device. Cumulatively, the increasing ubiquity of mobile devices has had an undeniably positive effect for those wishing to access support, providing several options for women who might previously have only had access to the family landline.

Where women's call history or digital communications were being checked, services found that it was sometimes possible to call women through apps, to add another layer of security and to avoid detection.

"We ring her through WhatsApp, because I don't think it comes up on her phone bill, you know her record of calls." (P5)

Whilst this would not work for all women, especially those under more comprehensive levels of surveillance, it could be successful where women's partners were less technically aware or did not use the apps themselves. For example, though Rebekah had not used it to access services, her husband was unfamiliar with

WhatsApp, and she was therefore able to use it for brief communications with her mother. Had the option to converse with services via WhatsApp been known, this might have provided Rebekah with a viable option when she needed to access help.

Once initial contact had been established, services had come up with numerous tactics for ensuring safe contact could be continued. These included calling women from a withheld number, using code words, and deploying false identities. Withheld numbers prevented women's partners from being able to reverse call, or Google search who had been in contact. To ensure that it was safe to speak with women, support workers and their clients would come up with pre-arranged words or phrases which indicated that their partner was present and that they were therefore unable to talk (P1, P14).

"Often they'll say you know, 'I don't want PPI [Payment Protection Insurance]', to say that the perpetrator's there and it's not safe to have those conversations.

Also, we have code words set up with agencies as well... so they're alerted that there's something happened, I need to get out now." (P1)

With regards to the adoption of a false identity, support workers would identify other professionals that women were, or could plausibly be, in contact with, and they would then adopt this identity if the woman's partner answered the phone or returned their call (P12, P13).

"I mean I've been a gas woman, I've been a social worker, I've been a health visitor, I've been a cleaner... you've just got to go with whatever is going to keep her safe." (P13)

Utilising services that women could (in the eyes of their partner) legitimately be in contact with was also a route for establishing contact with some of the most digitally surveilled women. In cases where it was deemed too unsafe for women and domestic abuse workers to be in direct contact, other professionals could sometimes be used as a conduit through which contact could be established and maintained (P11, P13).

"Participant: He hears all her calls, so there's no safe space for her to go. It's really difficult for her to engage. That's really frustrating, when she's asking us for help and yet there's that barrier up because she doesn't want to endanger her life by giving us a call.

Interviewer: So, what do you do in those situations, where they're struggling to be in touch because of the level of monitoring that's happening?

Participant: I think, it's easier if they have another worker. So, if they have somebody that they go to on a regular basis and the perpetrator knows that they've got to attend that appointment, we kind of sneak into that appointment." (P13)

General Practitioners were cited by two professionals as being key partners through which contact could be established and maintained with women (P5, P11). Women could tell their partner they were booking and attending a medical appointment or procedure, providing cover for the actual purpose for the appointment, which was to meet with domestic abuse services. If their partner checked their call history, they would only see contact with the woman's medical provider, corroborating the story which they had been told. Similarly, if the perpetrator was tracking her location, women would genuinely have visited the doctors surgery. Third party hosting

of meetings between women and domestic abuse services could therefore help to provide an added layer of security for women who faced higher chances of their helpseeking being discovered, should there be any digital trail of their interactions.

As well as being practically supportive, telephone contact was also popular with women because of the connection it enabled them to foster. Two of the women who participated in this research shared that hearing the voice of another person during a time of vulnerability and isolation provided them with a much-needed sense of comfort.

"I felt so scared. I need to talk to a person and hear a real voice." (S116)

"If I've been really down I've phoned the National Domestic Abuse Helpline just to have somebody there." (Claire - VS5)

Human connection is an important part of trauma recovery, supporting victimsurvivors to co-regulate their nervous systems within a safe relationship (Ford, 2013). Telephone contact allowed victim-survivors to form a somewhat therapeutic connection with professionals, giving them the opportunity to hear another's voice, and to respond to one another in real time.

To sum up, the advent of mobile phones has significantly improved women's ability to access services, even in cases of TFDA. For women with some level of social independence, the opportunity to make calls away from home, or from another device, means that they can engage with services in a way which may not have been possible prior to the advent of mobile technologies. For women under higher levels of digital surveillance, tactics like using a withheld number, adopting code words, or

assuming an alternate identity could help to keep contact safe. For women under very high levels of digital surveillance, arranging contact via a third party could be a viable option for establishing and maintaining contact. The ability to speak to professionals on the phone was important for women, allowing them to maintain much needed personal connections with people who could help them, during a time when they were likely to be socially isolated and in need of support.

5.3.2. Email, text message, and webchat

Whilst telephone calls provided flexibility and the comfort of hearing someone's voice, the ability to make and receive phone calls relied on women being able to identify a time and a place where they could speak without being overheard, and the means to make and receive phone calls without raising suspicion. As previously discussed, for some women this was very difficult, or even impossible.

Women did not always have independent access to a mobile phone, and when they did, perpetrators may leave women with little unaccompanied time, reducing opportunities for them to make private phone calls. When women were alone, making private phone calls could still be fraught with danger, with smart technologies enabling perpetrators to listen in to or record women's phone calls or voices. In more extreme cases of coercive control, women could be prevented from leaving the house independently, and if they were also being monitored by smart home technologies, this all but eliminated any space for them to make or take private calls. Examples like this were commonplace during the national covid lockdowns, when women were forced to stay at home with their abusers, with limited opportunity to go outside (HM Government, 2022). During the initial stages of the lockdowns, some services reported that contacts to their phonelines dropped.

"We found at the beginning of the pandemic the number of contacts through the helpline reduced...we know these people are out there, but they just cannot get through to us." (P9)

For these women, audible contact was not an option. Instead, silent options like emails, text messaging, or instant chat became more accessible. One participant stated that services had commissioned webchat functions as a direct response to the pandemic, as they tried to create channels through which women could reach out safely.

"They couldn't make telephone calls because they were obviously within earshot, which is why we set up a webchat." (P15)

The implementation of online chat options, alongside email and text messaging, meant that women were still able to converse with the domestic abuse sector during the national lockdowns, without their partners overhearing their conversation. However, though these silent support options did provide additional routes to support for some women, these methods of communication were not problem free.

Silent support options remained inaccessible for women under higher levels of digital surveillance, or whose devices had been compromised, resulting in limited digital privacy. Some women's partners had gained access to their internet searches, text messages, and email accounts, meaning they would be aware of any contact between women and services. If women were able to leave the house independently, they may be able to navigate around this by using alternative devices or accounts, with email and webchat functions being especially easy to access via third party

devices. If women could achieve this, then it meant that they could still be in contact with services without their partner knowing.

"Sometimes email support is the only support that's available to them, especially if they go over her phone. I'm just at the beginning of a conversation with somebody for whom that is the case now." (P3)

Across all the silent contact options, emails provided a more consistent means of accessing support if women wanted longer term input, as they could build rapport with a single professional over several weeks or months. For women with some level of social independence, it was relatively easy to set up a second email account, so long as they had a secure device from which to access it. For some women, like Helen, work provided a haven, as they had access to devices and accounts which their partner did not.

"My boss was happy for me to do it [contact services] via my work email. So, I kind of protected myself that way. They knew what was going on, and if I needed to go in of a weekend to do any particular stuff I could go and use the work computer, and that's kind of how I got round it I guess." (Helen - VS1)

If women did not already have a second email address, such as a work account, it was still possible for them to set up a secret email address, which they could also choose to make anonymous (P2, P10, P15). To improve their safety, this email account would only be accessed via a device which their partner did not have access to, such as a public computer.

"You know one woman; she could use her library and was safe to use the library computers. That was one of the things that helped her. So, it's finding access." (P16)

The same participant, who worked for a Women's Centre, further explained how another client had once stored a secret laptop with them, which she then used whilst she was at the Centre to send and respond to emails (P16). This practical support allowed her to maintain contact with key services in a way which felt safe for her.

In summary, physical and digital control of women may make audible options, like telephone calls, impossible. In these cases, silent contact options such as text messages, webchats, and emails may make it possible for women to be in contact with services. However, women may still have to take steps to make these silent options safe, especially if their devices or accounts have been compromised. Many women were able to get around this by using devices or email addresses at work, by using public computers, or by storing second, secret devices with safe people. Again though, these options relied on women having some level of social independence. For women who are not allowed to work or to leave the house alone, and who faced more extreme levels of digital surveillance, these options may prove to be of little use. Options to disguise contact, as was done with telephone calls, were not discussed in relation to emails, perhaps due to the opportunities being more limited. It is not possible to withhold an email address in the way that a phone number can be withheld, and emails do not provide the same opportunities to adapt to circumstance (through using code words or false identities if the perpetrator is present or responds). In this sense, phone calls, particularly via third parties, may remain a safer option for those under higher levels of digital control.

5.4. Service providers experiences of digitally facilitated contact

For support workers and service providers, there had been several benefits to the increase in digital contact. Digital contact was seen to have improved women's access to and engagement with services, reducing the number of missed appointments (P5, P6, P7, P14). Telephone calls provided greater flexibility, making it easier for women to fit support around their schedules and to make or take calls away from their partner. Telephone contact also supported women in rural locations and those with caring responsibilities to speak with specialist workers.

"I've personally found that people's engagement is better... it's a lot easier if you've got four kids at home to have a phone call with your IDVA, rather than getting them all on a bus and meeting me at your GP surgery." (P6)

Written communication, such as emails, text messaging, and webchat, were also seen to be beneficial, providing women with an opportunity to consider what they wanted to say, and how they wanted to convey their experiences. For women who may not be sure whether they are being subjected to abuse, or who may not have the terminology to describe their experiences (see section 5.1), having the time and space to consider how to express their feelings and experiences in written form supported them to communicate openly and freely, in a way which may not be possible face to face or during a phone call.

"I think what we find with the option of coming through by chat, it's that ability to sort of formulate your own words to make sense. We know that it's difficult for people to vocalise and verbalise what's going on at home, and if you're on the phone those words will come out, and once you've said them then there they are. But I think if you're trying to put something down for the first time, if you're doing it via live chat then you can play around with the words... I'm going to take that word out, is that what I really mean?" (P9)

Written communication via email, text message or webchat also allows women to conceal their identity, which appeared to improve some women's confidence in seeking advice or support (P15). One professional reported that anonymous contact was a common occurrence amongst those reaching out to their service.

"The majority of the time people will actually email us from like, not a fake email but almost like a burner email, so they can't be tracked." (P10)

There are lots of reasons that women may wish to conceal their identity, including fear that they will not be believed (S115). The ability to be anonymous also provided an avenue for accessing information and support for women who worked in the domestic abuse sector or affiliated sectors, who may not wish to identify themselves as being a victim (S66). Anonymity was also highlighted as being of benefit to those living in smaller or more rural communities, where women were more likely to know those working in services personally.

"They were too terrified to give their name or identity...because even [redacted] as a city is quite small and we have workers on the team who, unlike myself, have grown up here and know everybody. A name comes in from [redacted]

and they give you a potted history of not only her, but all her family and his family as well. So yeah, I think it's that anonymity that they like." (P3)

Digital communication had therefore enabled services to adapt provision to local need, allowing more women to access services in a way which felt comfortable for them.

Once women were in contact with services, the diversity of digital support options also meant that professionals could tailor the support to meet the needs of individual clients, as they continued to work with them (P3, P5, P15, P16).

"We can be creative in what we do... one client I had, she was really young and vulnerable. I think the first six sessions I was only able to talk to her mum...in the end we did the domestic abuse awareness work over Zoom and it's the only client I've ever done it with, I've never needed to do it again. But it worked so, so well." (P7)

Again, digital options had allowed service providers to personalise the support they were offering, providing women with a better experience, and increasing the likelihood that they would continue to engage.

Alongside enabling services to be more responsive to the service delivery needs of different women, digital contact had also been noted as a time and cost-effective means of engaging with women (P7, P9, P13, P14). In a sector facing increasing budget cuts, who are constantly looking for opportunities to reduce expenditure (Domestic Abuse Commissioner, 2021; Women's Aid, 2024), any cost saving measure was seen to be significant.

"As you know we're a voluntary organisation, and look at the cost cutting with regards to travel etcetera" (P5)

By reducing expenditure on staff travel, services had been able to redirect money elsewhere, whilst continuing to support a high number of clients. Consequently, it was felt that "support has changed, and it's unlikely to go back" (P14).

Yet, despite the benefits, one of the digital contact options was seen to have increased staff workload, whilst decreasing staff availability. Though online chat options had been crucial to facilitating contact during the pandemic (P15), one service manager had noted the increased demands that online chat functions were placing on her staff.

"Chat takes on average four times as long as a call...you could have, especially at peak times, almost that wish, why don't they phone? But it's that person's prerogative, we would never say do you want to phone us." (P9)

Online chat functions are becoming more popular, with researchers and activists investigating ways to make these tools more effective (Chayn, 2021; Butterby and Lombard, 2024). However, it seems that any gains made by digitisation must be carefully assessed and weighed up against the challenges, like building online chat functions which are culturally and linguistically competent (Hussain, 2023), and the costs to services, with the domestic abuse sector already in financial peril (Women's Aid, 2024a).

Other concerns were raised by those working in the domestic abuse sector when it came to digital service provision, particularly in regard to the ability to confirm the

identity of the person they were talking to, and to risk assess women and their children effectively. For some, the challenges of identifying who was on the other end of the call, email, or text message, especially during early contacts, raised concerns around risk management.

"It is quite tricky when we are trying to contact clients, and we haven't had much of a relationship with them. If other people are answering the phones, if they're living with perpetrators and they're answering their phone...I think in regard to risk, it has been a lot more difficult to manage with doing things remotely." (P8)

As previously discussed, services have already developed several strategies to try and navigate around this issue, including withholding phone numbers, agreeing code words with women, and having false identities ready to adopt if they are unsure who they are speaking to (see section 5.3.1.). Services were also more careful about checking for any potential breaches before commencing digital communication.

"I think we're more mindful about how we work... when people say you can email me, you always do those checks with them. Could it be that he's got your email? And people will say, well yes he did have those details, or he did have this or that information." (P1)

However, concerns remained about the potential risks to women if these strategies ever failed, with the possibility that women's contact with services could be uncovered. There was always a risk that contact could be intercepted by women's partners, and that women's partners would then be aware that they were receiving

support, and/or making plans to leave. As already mentioned, this loss of control over their partner could make perpetrators very dangerous, leaving women at risk of significant harm or homicide (Dobash and Dobash, 2015; Monckton Smith, 2020).

A related concern raised by support workers was the impact that the loss of visual information had had on their ability to make accurate risk assessments (P12, P13, P15). Participants discussed how being unable to see the woman, her children, and/or her surroundings made it more challenging for them to assess women's circumstances, and the severity of the abuse.

"If I was in a domestic violence situation and I had a black eye or I had a bruise or I was withdrawn or whatever, they would see that and they could probe that, and they're not going to see that you know?" (P9)

Another domestic abuse support worker reiterated the need for visual information to accurately assess risk.

"You can't always see a situation for what it is unless you go and visit that person, or they come and visit you. I think face to face, there is nothing like that because you can pick up by their body language...I can't see your legs shaking, I can't see your hands shaking, I can't see if you're agitated you know, in any other way...So for me, in order to be able to support somebody to the best of my ability I've always had a belief that it's important to actually have physical contact with somebody." (P12)

The loss of visual information meant that support workers were going off what women were telling them when assessing risk. This could easily result in women's risk levels being mis-graded, especially in cases of TFDA, where women may not be aware of tactics of abuse, may not want to share them, or may not feel that they are worth mentioning (Messing et al, 2020, also see sections 3.10.2., 3.12.2., 4.2 and 5.1). This is a concern which has not yet been reconciled with the need for digital service provision.

Finally, concerns were raised about the potential for some women to be excluded from services owing to service digitisation. It had been noted that some clients were struggling to reach out to services due to lower levels of digital literacy and/or written literacy.

"There are some clients that don't like telephone support, they want somebody to talk to. They're vulnerable or they can't read or write." (P7)

Older women (Dafoulas et al, 2022) and women with learning disabilities (Harris and Woodlock. 2021) are particularly likely to be disadvantaged by the move towards digitised services. This could potentially leave services in breach of the Equality Act 2010, which states that indirect discrimination with regards to protected characteristics must be prevented.

5.5. Conclusion

An increasing reliance on technology for (at least initial) contact with services has had a notable impact for women subjected to TFDA. Depending on the level of digital surveillance that women are under, establishing contact with services can be difficult,

or even impossible. For those under the most extreme levels of digital surveillance, contact with services may not be established until they have already left the relationship, leaving them without risk assessment or risk management, and in danger of serious harms (Dobash and Dobash, 2015; Matthews et al, 2017; Monckton Smith, 2020). Potential strategies to help these women access services can be found in the experiences of women and service providers who have managed to establish contact, despite the challenges they have faced.

Women may also struggle to establish links with services due to a lack of knowledge about domestic abuse and TFDA, and/or lower levels of digital literacy. If women are unable to recognise themselves as victims of domestic abuse, then they will be unaware that they are eligible for specialist support. Women who are not confident with technology may also rely on their partner to help them to access digital services, but in cases where domestic abuse is present, this is neither appropriate nor accessible. To address these challenges, public information campaigns are needed to increase awareness and knowledge of TFDA, and women must have spaces where they can access digital support independently or with support. Consideration does need to be given to how this can be done safely and effectively but doing nothing for fear of 'giving perpetrators ideas' leaves women at risk or harm, as they struggle to identify the abuse.

These findings have also highlighted that a range of digital options are necessary to support women to establish and maintain contact with services. Telephone calls were popular amongst those participating in this research, as they provided women with the flexibility to call from anywhere, from any device, and to then work out safe contact. Telephone calls also gave women the opportunity to hear a professional's voice, which women valued when they were feeling isolated or alone. However, telephone calls were not always a possibility for women, particularly when they did not have much time away from their abuser. Telephone calls could also be

problematic for women who were regularly recorded, either at home or through mobile devices. For these women, silent options could be more realistic.

Silent options such as email, webchat, and text messaging became more popular during the pandemic, when women were stuck at home with their abuser and could easily be overheard (Hohl and Johnson, 2021). Text based communications were also popular with women post-pandemic, particularly if they had access to a secondary device, such as a workplace or public computer. Emails in particular allowed women to maintain contact with a single professional, enabling them to build rapport and make plans to leave. However, this method of communication once again relied on women having the freedom to access devices away from the home, which was not always possible. For those under the highest levels of digital control, text-based communications could be particularly risky, as there were fewer opportunities for women or professionals to disguise the content of the communications.

For those under the highest levels of digital surveillance, third party co-ordinators may provide one of the only opportunities for women and specialist services to establish and maintain contact. In particular, properly trained healthcare professionals could provide a vital resource for women to engage with specialist services, both as a first point of contact and then as an ongoing conduit for communications. This function could similarly be provided by other services, including legal professionals, job centres, or children's schools. However, these services would also need proper training on domestic abuse and TFDA in particular, so that they could facilitate these contacts safely and effectively.

Finally, from a service provider perspective, digital contact has been overwhelmingly positive. It is seen to have improved access and engagement, allowing professionals to adapt provision to the needs of particular groups or individuals. Digital provision has also supported the sector to save money, which is

important given the current financial climate (Domestic Abuse Commissioner, 2021; Women's Aid, 2024). However, digital services have not all been as helpful as one another. Online chat functions have been found to be time consuming, reducing staff workload capacity. Other concerns have also been raised about digital contact, specifically around staff ability to recognise who they are talking to, and to risk assess accurately. This could leave women in danger, should mistakes be made. Finally, digital services have been seen to further marginalise older women, women with learning disabilities, and migrant and refugee women, due to assumptions about digital and written literacy. This may leave services in breach of the Equality Act, if they do not find consistent ways to ensure these women can still access their services.

Supporting women to leave and regain digital autonomy

After establishing contact with services, the processes of leaving the relationship and regaining digital autonomy are amongst the most dangerous, and most complex, parts of women's journeys to freedom. By ending the relationship with their abuser, women are challenging their partner, who may escalate their abuse in an attempt to regain power and control (Dobash and Dobash, 2015; Matthews et al, 2017; Monckton Smith, 2020). This can result in increased harm to women, or women being killed, if the appropriate safeguards are not put in place. One industry which is conspicuously absent in their attempts to safeguard women are the tech industry, which will be returned to in chapter 8.

Regaining digital autonomy is particularly complex because what women need, and when they need it, will vary greatly depending on their individual circumstances. During interviews for this project, it became apparent that the kinds of support women needed varied significantly based on whether they were going into emergency refuge accommodation or staying in the community. When women were going into refuge, they effectively needed to digitally 'disappear', which required swift and comprehensive action to be taken. For women who were remaining in the community, the need to disappear was not as great, as their partner was likely to know at least their general location, if not their specific address. Rather, these women needed skilled support to digitally decouple from their ex-partner in a way which was safe for them, which could be much more technically complex (Matthews et al, 2017; Tanczer et al, 2021). The steps women participating in the research took, or were encouraged to take, are discussed in turn below, beginning with women in emergency refuge accommodation, followed by women who remained in the community.

6.1. Supporting women in refuge

Emergency refuge accommodation has been available to women fleeing domestic abuse in the UK since the 1970s, with the first refuge being opened in Chiswick in 1971 (Refuge, 2017). There are now refuges available across the whole of the UK, which are used to temporarily house women and children at risk of being harmed or killed by their partners and fathers. The locations of these refuges are kept secret, so that perpetrators cannot follow women to the address and cause them additional harm. Further information on emergency refuge accommodation can be found in the literature review, section 2. 3.

Service providers participating in this research all shared that the advent of digital technologies had been one of their biggest challenges over recent years. When the current model of emergency refuge was conceptualised, it was relatively easy for providers to conceal the locations of their refuge accommodation (Bowstead, 2019). Now, with tracking software and devices being mainstream, protecting women's location is becoming increasingly difficult.

"When women come to refuge, our biggest issue is technology and stopping them being found." (P4)

In the UK, refuge accommodation is both underfunded and oversubscribed (Women's Aid, 2024), and this means that service providers will often only accept those who are at the highest risk of being harmed or killed by their intimate partners (Bowstead, 2019). As such, women entering refuge typically need to 'disappear' to remain safe, and in contemporary times, this means removing all digital traces which could be used to track them down.

During their interviews, refuge and support workers provided several case examples demonstrating how women had been, or could have been, tracked to refuge by their abuser, due to digital technologies. Because of the risks posed to them, these women had had to move on to alternative accommodation to ensure their safety.

"We had a lady who came here [to refuge] with her phone...about two days later she realised that in her old place, she had an iPad that was logged into the same accounts, as in you can see where they all are. So, if her ex-partner had looked at that iPad, he would have seen where she last logged in. You can't take the gamble that he might not look, you've got to keep them safe. She did end up having to move again." (P4)

"One child took a picture of himself playing football and it was in [county], and they got exposed... she got moved really quickly." (P13)

Moving into refuge is stressful for women and children, leaving their home, possessions, and support networks behind to find safety (Bracewell et al, 2020). Having their location exposed and having to move again, to a second refuge, compounds the original trauma that these women have experienced. Needing to relocate women is also a challenge for services, who, as previously mentioned (see section 2.3.3.), are struggling to find beds for women and their children in the first place. Attempting to find a second placement, often at short notice, creates additional strain for a network which is already under immense pressure (Women's Aid, 2024).

In light of such security breaches, some services were now operating a 'scorched earth' approach to technology. This meant that women either had to leave all of their

technology behind when they fled, or they had to switch off all of their devices before they left their home address, keeping them switched off for the entirety of their stay.

"Don't bring a phone, don't bring a tablet or a laptop, or anything...our clients here aren't allowed social media...We don't allow online gaming." (P4)

Services were under the impression that policies such as these would make women digitally untraceable. However, whilst leaving all of their technology behind would achieve this outcome, switching devices off will not always be successful. For example, following the iOS 15 update, 'Find my iPhone' can continue to work after a device has been turned off, allowing connected devices to find the device for up to 24 hours (Apple, 2024). Consequently, unless women are aware of these features, and know how to disable them before leaving home, it is possible that their abuser may still trace them to refuge, even if their devices remain turned off. None of the women with lived experience or the professionals participating in this research indicated that they were aware of this risk.

As well as being asked to leave behind or switch off all of their devices, women were routinely being asked to have their cars checked on their way into refuge.

"Before people can come into refuge, we do advise people call by a garage and put their car on the ramp, just so we can check if there are any tracking devices on their car." (P8)

At present, this appeared to predominantly relate to concerns over concealed tracking devices. However, one professional participant, an Independent Domestic Violence Advocate, did highlight the growing risk from cars which have GPS technologies automatically installed. This particular participant (P6) had worked with a client who owned a Tesla car, which could be remotely GPS tracked via an app. Although it had not yet happened in this case, it is easy to see how such a car could be used to stalk women's movements. As with the smart home technologies discussed in section 4.1.4., this is an issue which will require further attention as IoTenabled cars become more mainstream and affordable.

As well as tracking devices being attached to or hidden within women's cars, professional participants also raised concerns about opportunities for perpetrators to attach tracking devices to other possessions, including women's handbags, children's school bags, and children's toys. Where there were concerns about tracking, social workers were sometimes 'quarantining' women's and children's belongings before they were taken to the refuge.

"Sometimes you might get a woman who's fled with her children, and social services go back to the house to get their belongings...those belongings are screened, and if there's anything we think is not quite right then it doesn't come here. So, the social worker has to take everything away to another location, let them sit there for a little while, and then they take them to another location before they can be brought here, so that the perpetrator can't follow. The social worker would never be able to come straight here, because you can be followed." (P4)

The idea was that by moving belongings between various locations, social workers could establish whether they had been compromised based on whether or not women's ex-partners turned up in the vicinity. This would help to conceal the location of the refuge and reduced the likelihood that women and children would be traced to their new address. However, as pointed out by two other participants working in the domestic abuse sector (P8, P9), the fact perpetrators could monitor their partner and/or children's locations remotely was sometimes the very reason they did not attempt to initiate in-person contact. Therefore, the fact women's ex-partners do not turn up at the location where the belongings are being held is not necessarily proof that the belongings are not compromised. Being trained to or having support to check women's and children's belongings for tracking devices manually would be more likely to create a successful outcome.

Although the various tracking-prevention measures discussed by professional participants may help to physically protect women and children from harm, forgoing all technology also created problems, as it isolated women from their much-needed support networks (Powell and Henry, 2018; Dragiewicz et al, 2019). Having access to these networks is an important part of helping women to feel safe and supported, and to remain out of the relationship and in recovery (Wilcox, 2000). Whilst refuge staff participating in this research acknowledged this impact, they also highlighted that the specific circumstances surrounding women's entry into refuge made it difficult for them to take any other approach.

"The reason you're coming into refuge is because you literally can't stay there, so it's not a case of okay let's download this and let's sort this, it's a case of okay leave that phone behind." (P4)

Women usually moved into refuge at short notice and had little to no interaction with refuge staff before their arrival (Bowstead, 2015 and 2019). As such, there was limited time or opportunity to 'decouple' women from their abuser before they left their home address. As previously discussed, (see section 4.1.2. and 4.1.3.), by the time women reached refuge it could be too late to secure their technology, as their partner may already have accessed their location. For women to be able to keep their technology, there would need to be a way for them to secure their technology on the way into refuge, or to leave their technology elsewhere until it could be made safe. This issue is explored further in the discussion and conclusion chapter (section 8.3.), and the recommendations documents at the end of the thesis.

Whilst there were issues with women retaining their own technology, services did recognise the role of technology in facilitating women's independence (P2, P3, P4, P16). Therefore, some services were attempting to provide women and their children with new devices once they arrived in refuge (P4). Even with new devices, steps were having to be taken to ensure that women's ex-partners could not contact them or trace them, and that their new devices did not connect back to the ones they left behind.

"Everyone has to change their phone number. Everyone has to change their email address. All location services are off at all times. All things like 'Find my iPhone' are off at all times. Apple ID or anything like Google ID, whatever it is, has to be changed. Same with laptops, same with games." (P4)

Therefore, women's digital freedoms, and ability to connect with their support networks, was still limited due to their abuser. As well as the impacts on women, the cost of replacing technologies for women and their children was also placing an additional burden on services whose funds were already stretched (Women's Aid,

2024). Some services were attempting to fundraise or gather donations from their local community, but others were paying for devices out of their own reserves (P4). This is unsustainable long term and ensuring women fleeing domestic abuse have access to digital technologies requires co-ordinated planning and funding, to ensure that women can stay connected and access help after fleeing abuse.

Once women were ready to move on from emergency refuge accommodation, things rarely returned to normal. Most of the women remained in hiding from their expartner, and technology had to be carefully managed long term. Women were often advised to continue following the rules of refuge after they had moved into their new accommodation.

"We recommend that they follow suit with what they've been doing. So, location services off, keeping their new number... we would always say to women social media comes with risks. We try to teach them the risks. So don't have your location on, don't post anything about your location or anything that's going to identify you. Maybe change their names or have a different name online." (P4)

This meant that women were being subject to long term "safety work" (Vera-Gray, 2016; Matthews et al, 2017; Harris and Woodlock, 2019) to protect themselves from harm. Women must constantly monitor their online presence and use of everyday technologies to avoid being tracked down by their abusive ex-partner. Woodlock et al (2020) described women's ongoing fear as 'mental torture', with women never being able to fully relax, knowing the potential consequences of getting things wrong. However, until the tech industry steps up, and existing criminal laws and civil orders are properly applied and enforced, the responsibilisation of victim-survivors to ensure their own safety will continue.

6.2. Supporting women who are staying in the community

Proportionally, the number of women who go into refuge when fleeing domestic abuse is relatively small (around 9% of referrals, as reported by Women's Aid, 2024). For the majority, the decision is made to remain in the community, potentially at the same address. For these women, becoming entirely untraceable may not be necessary, as their ex-partner will already be aware of their location. Instead, these women's focus is more likely to be on separating themselves digitally from their expartner, so they can regain private and secure access to their devices and accounts. Whilst this is less encompassing than the steps women in refuge must take, trying to digitally separate women from their ex-partner is far more technically difficult, and requires more expertise and skill. Digital separation must be done at the right time, and in the right way, so that women can regain their digital autonomy without increasing their risk. Whilst some women will attempt to digitally separate from their partner independently, many will rely on the support of others, including family, friends, and services. This section will consider the steps women take, who they ask for help from, and the quality of the advice women are given by the services they seek support from.

6.2.1. Steps women took to secure their accounts and devices post separation

Women took a variety of steps to try and re-secure their accounts and devices. Most commonly, this involved women blocking their partner, and/or changing their passwords. 83% of women participating in the survey had done the former, and 68% the latter. Of all the measures taken by women, these may have been most popular as they caused the least practical and financial disruption to women's lives, allowing them to continue using their pre-existing devices and accounts whilst ending, or at

least reducing, the abuse from their ex-partner. Other less intrusive steps women took, shared in the open text boxes of the survey, included changing the privacy settings on their mobile phone (S32), and purchasing high-security password managers (S131). Women's use of social media was also affected, with some women deciding to delete contacts (S64). Other women deleted their entire social media accounts (S82), with 40% of participants setting up new social networking profiles. In other cases, women chose to use a false identity online (S115 and S128), to evade their ex-partner and any mutual contacts.

Several participants had also taken more significant steps to secure their personal accounts and devices. Almost half of the survey participants (47%) said that they had switched to a new email address, and 41% had changed their mobile number in an attempt to prevent contact from their ex-partner. Some women had also replaced items of technology, with 44% purchasing a new mobile phone, and others replacing laptops and iPads (S61 and S92). For this group, the practical impacts of having to replace accounts and devices was closer to the experiences of those going into refuge. However, a significant difference was that those staying in the community experienced fewer time pressures, meaning they had more opportunity to transfer information, and were therefore less likely to lose contact information for family and friends.

As well as securing their accounts and devices, women also took steps to increase their personal safety. One quarter (25%) of women participating in the survey said they had installed GPS or location tracking software onto their mobile phone so that family and friends could see their location. Almost a quarter (23%) had installed CCTV or a smart doorbell at their address. A similar number (22%) had purchased a panic alarm or had had one installed at their address, and 22% had downloaded an app to record any further abuse that took place post separation. Other steps that women had taken, shared in the open text boxes, included installing security lights (S106),

carrying a rape alarm (S108 and S110), installing smoke and fire alarms in case of arson (S43 and S81), and attaching alarms to windows and doors in case of break ins (S40, S74, S106, S108, S112 and S138). Some of these measures may have been provided through the Sanctuary Scheme (Netto et al, 2009; Hodgkinson et al, 2022), although this information was not collected from participants and so cannot be confirmed.

Through the survey and interviews, it became apparent that women were adopting the same technologies commonly used by perpetrators as part of the abuse, as part of their attempts to safeguard themselves, or to generate digital evidence. Despite the potential risks connected to these technologies (Matthews et al, 2017; Chatterjee et al, 2018; Brookfield et al, 2025), professionals were routinely recommending them to women post-separation, as part of safety planning (P1, P3, P6, P12, P13, P14). Only one professional participant acknowledged the apparent contradiction in services recommending devices which had also been used to cause significant harm to women.

"That's the thing, some of the things we're complaining about we're providing as well, you know." (P14)

The fact that professionals both mistrusted and recommend the same apps and devices in different contexts is indicative of the dual capabilities of many technologies (Chatterjee et al, 2018). Though they provide enhanced opportunities for perpetrators to abuse their partners, when used carefully and with consideration, the same technologies can also increase women's sense of security and improve legal outcomes for post-separation abuse. Two specific technologies with 'dual use'

capacity, namely location tracking software and smart doorbells, will be explored in more detail below.

Though many of the women participating in this research had been tracked by their partner during their relationship (64% of participants in the survey), professional participants reported that it was relatively common for women to allow their family and friends to track their location post separation (VS5, P1, P2, P5, P6, P7, P8, P14). Usually, this would be via existing functions like Apple's 'Find My' or specifically designed apps such as HollieGuard (2024). If women were assessed as being at high risk of serious harm or homicide, they may also be provided with a TecSOS phone by the police, which connects them directly to emergency services (P2). Possessing these apps and devices meant that women could alert their loved ones, or the emergency services, if their ex-partner approached them, increasing their sense of safety. However, owing to the frequency with which women's partners had accessed location tracking apps to monitor them during the relationship, there was also risk associated with enabling location tracking for family and friends, even post separation.

Women needed to find ways to share their location with their family and friends without their ex-partner being able to gain access. How women navigated this largely depended on the level of access their partner had previously had to their devices. If the perpetrators access had been limited, or women were able to access the information and support they needed to secure their device, it may be relatively safe for them to share their location with family and friends. However, if the perpetrator owned the device, or their device had been compromised during their relationship, women sometimes chose to the replace items to ensure their security.

"I liked to be tracked by my friends because I was assessed as being high risk.

I did end up buying another phone so that I could be confident that I couldn't be tracked by him. I also ended up buying another phone for my son, because I believe he was tracking my son." (Claire - VS5)

Replacing devices creates an additional cost for women who are leaving their abuser, with many of them already having multiple other outgoings to cover. However, women did not always have access to the support they needed to secure their devices, which left them feeling they had few other options (potential means for addressing this are discussed further in chapter 8).

Alongside location tracking, smart doorbells were a popular security measure for women post separation, even though smart doorbells were increasingly being used as a tool of abuse (P1, P3, P6, P11, P16). Within this research, 11% of survey respondents had been monitored through a smart doorbell during their relationship (see section 4.1.4. for more details). Domestic abuse support workers explained that there were several reasons women may choose to install a smart doorbell post separation. For some, they provided reassurance that they were experiencing harassment or abuse, and that they weren't imagining things or becoming paranoid.

"A lot of the time it helps the victim have self-belief. I think that's worth its weight in gold, the fact that they then recognise they're not going mad, you know. That this is harassment." (P12)

This was particularly pertinent in cases of TFDA, with technology enabling the distortion of reality, or the creation of a sense of 'unreality', amongst victims

(Williamson, 2010 as cited in Harris and Woodlock, 2019). For example, when victims are unaware they are under surveillance, perpetrators may be successful in gaslighting women into believing that they are paranoid for thinking their partner is following them, or that they are forgetting conversations, the details of which perpetrators have actually overheard via hidden cameras or microphones (VS2). As such, having hard proof of the abuse, perhaps via the violation of an order or bail conditions, contributed towards restoring women's trust in their own judgement.

Smart doorbells were also useful for gathering digital evidence of post separation abuse, particularly if perpetrators decided to break protective orders or bail conditions (P6, P12, P13). Smart doorbells were noted as being more useful than traditional CCTV units due to comparatively cheaper cost, and the angle of the camera, which made it more likely that offender's faces would by captured in evidence.

"He was released at six o'clock and at midnight he put roses on her windscreen... because he had a hoody on the police said, 'oh we can't identify him'. So, we got her a doorbell, and the next time it happened...her doorbell caught a picture of his face. So, we were able to say, 'right he's broken the restraining order'. The police took him back in and he ended up having to serve the rest of his sentence." (P12)

If women were reporting new incidents of harassment or abuse to the police, any digital evidence which they had collected could become an important factor in achieving a charging decision (Barlow et al, 2020).

"I think when you do have evidence, if they've taped them going off, getting really aggressive, really angry, then straight away that does provide a starting point where they're more believed and they're more likely to go to CPS [Crown Prosecution Service], because they have evidence that they are a victim." (P12)

Owing to these potential benefits, several organisations were now encouraging women to install a smart doorbell at their property post separation (P1, P3, P12, P13, P14). However, women were not always able to cover the cost, especially if they had been subjected to financial abuse, had had to move accommodation, or needed to replace other costly personal items. Occasionally domestic abuse services were able to support women to access a smart doorbell, either through donations or sourcing the funds to cover the cost. If women were deemed as being at high risk of ongoing harm, other agencies such as the police (P13), or housing associations (P6) would sometimes support women to access a smart doorbell. However, this patchwork of provision meant that women most commonly had to fund their own doorbells, leaving the most vulnerable with less security and less opportunity to gather digital evidence.

6.2.2. Responding to individual circumstances: Helen and Rebekah

Which steps women took, and when, was highly dependent on their personal circumstances. Measures looked different on a case-by-case basis and were determined by several factors, including the perpetrators level of motivation, their technical skill, the types of abuse they engaged in, and whether the couple shared any children. During interviews, women and professionals reflected on the different lengths women would go to in order to manage or prevent contact from their expartner. They also discussed the timelines for these steps, with some women taking longer to implement measures than others.

The stark contrast in the needs and approaches of different women can be seen in the interviews with Helen and Rebekah. After they separated, Helen, whose husband had installed keystroke logging software on her devices, had taken swift and comprehensive action to remove her ex-husbands access to her devices.

"I changed my phone. I smashed up the old computer.... I did whatever I needed to do to try and protect myself." (Helen - VS1)

For Helen, removing her (now ex-) husband's access to her devices was important for regaining privacy at home and within her personal life. Knowing she was no longer under constant digital surveillance meant she could interact more freely with her loved ones, and she began to re-expand her life by engaging in new opportunities. In contrast, Rebekah had taken more time to block her ex-husband's digital access to her. Rebekah's ex-husband resided in a different country to her, and he had not compromised her devices and accounts in the same way that Helen's ex-husband had. This meant that Rebekah did not have the same concerns around digital surveillance, which allowed her the time and space to process her experiences and settle upon a response.

"I didn't immediately block him...I don't know if that was about me... processing in my mind it was over, because there was no question of me ever going back. I would never be alone with him ever again in my entire life. I mean I'm scared." (Rebekah - VS3)

For Rebekah, part of the decision not to block her ex-husband centred around the fact that she was able to monitor his location. By checking his WhatsApp and social media profiles, she was able to see that he was still overseas. This reassured her that she was physically safe from him and meant she would have time to plan were he to arrive in the UK. This allowed Rebekah some semblance of control and security, following years of danger and instability.

Rebekah's desire to monitor her ex-partners location was not unusual. Professionals working in the domestic abuse sector explained that closing down avenues of communication could sometimes increase the risks posed to women (P1, P8, P14), as it prevented them from being able to monitor their partner's location and frame of mind.

"A lot of people or different agencies will say to women to block their ex on social media, but we don't always recommend that because you can get a tone of how someone's feeling or their mood or what might be coming next." (P14)

By keeping a channel of communication open, women and services were better equipped to assess risk and safety plan. For example, threats to harm women, their loved ones, or their property could only be acted upon if they were known about. Allowing some form of digital contact could also prevent abuse from escalating, as it reduced the likelihood that a perpetrator would seek in-person contact (Freed et al, 2018; Woodlock et al, 2020; Afrouz, 2023). For women who were remaining in the community, receiving digital communications was seen as preferable and less threatening than having their ex-partner turn up at their address (P1). However, continuing to receive communications from their ex-partner, whether or not they were explicitly abusive, trapped women within the cycle of abuse, even after they had left

the relationship. More should be done by statutory agencies, including the police and court systems, to protect women from abusive men, so that women do not have to make impossible choices to balance their physical and psychological safety.

6.2.3. Where women obtained digital information and advice from

Whatever women's personal situations were, they often sought digital safety advice and information from services. The professional group most likely to provide advice to women were IDVA's, with 70% of those who had an IDVA obtaining recommendations from them. Amongst those who were in contact with domestic abuse services, 68% had received information or advice regarding their technology. Just over half (58%) of survey respondents had received digital safety advice or support from the police. The professional group least likely to provide advice was child protection services, with just 11% of women having received information or recommendations from their child's social worker.

IDVAs may be the professional group most likely to make recommendations due to the nature of their caseloads, with IDVA's usually being assigned to women who are assessed as being at high risk of serious harm or homicide (Safelives, 2021). Safeguarding clients would therefore necessitate being able to give accurate safety advice, including around technology. However, during interviews it became apparent that professionals from across the domestic abuse sector were struggling to provide digital safety support to women, despite that fact that two thirds of survey respondents had received information from them.

"Yeah, it's a bit of trial and error. Which sounds really rubbish because you're just, we should be able to advise a bit better really." (P6)

Three professionals participating in the research shared that they did not know where to look for information about digital safety (P4, P7, P9), whilst others stated that they would usually rely on Google to answer women's queries about securing their devices (P2, P11, P16).

"Our go to method when we're trying to help women is Googling what type of phone she has...we're kind of scrabbling about I think." (P11)

In two services (P2, P15), domestic abuse support workers were relying on IT technicians to answer women's questions. Whilst this meant that they had access to accurate and technically skilled advice, IT technicians are not trained to engage with domestic abuse and do not receive clinical supervision, leaving them open to vicarious trauma. It is also unlikely that IT staff will have been subject to more than a basic Disclosure and Barring check, if any (Unlock, 2022), meaning that sensitive information about vulnerable women may be shared with unsafe people.

However, whilst this set up may not be entirely appropriate, having access to an individual or team of tech specialists was seen to be important, as it was preferable and more realistic than expecting domestic abuse support workers to specialise in digital technologies.

"We have our specialist area, and other people have theirs, and I think if there were a way that we were able to communicate with somebody who was more tech savvy, I think that would definitely work better." (P2)

Having access to a dedicated tech specialist who understands domestic abuse, either in house or within the local area, could be an invaluable resource for victim-survivors and professionals. How this might look is discussed further within the discussion and conclusion chapter (section 8.4.), and the recommendations document at the end of the thesis.

With regards to the police, it was anticipated that a higher number of women would have received digital safety information and advice owing to their role in 'target hardening'. Target hardening, also known as the Sanctuary Scheme, is intended to support victims of domestic abuse to remain in their own home post separation by securing their property. This may include fitting cameras, alarm systems, additional locks, and safety glass, as well as reinforcing external doors (Netto et al, 2009; Hodgkinson et al, 2022). Whilst it is possible that some of the women participating in this research had been assessed as not meeting the criteria for formal intervention under the Sanctuary Scheme, that would not preclude police officers from providing general safety advice regarding their technology. Information on how to secure accounts and devices, and recommendations of protective technologies, could help make women feel safer, reduce or prevent further incidents of abuse, and increase the likelihood of any further incidents being captured as evidence. The fact that there was a deficit between the number of women in contact with the police, and the number of women receiving advice or support from them (69 women in contact with the police compared to 40 women receiving advice), suggests that some police officers lack knowledge and confidence 'target hardening' against TFDA.

Police officers were also repeatedly cited as lacking professional curiosity when it came to technology during domestic abuse call outs. Some of those working in the domestic abuse sector had noted that police officers rarely looked for or pointed out technologies which could have been compromised by women's current or expartners, whilst they were attending an address.

"I think it is quite difficult to get the police on board... if they attend a call out with an ex-partner and they see a Ring doorbell, they should probably just say oh you know that Ring doorbell you've got on your front door right here, is that something that your ex-partner's got access to? As a matter of course." (P6)

This lack of professional curiosity likely reflects a lack of awareness and could be addressed with training on technology and domestic abuse. Further recommendations around police training are included in the discussion and conclusion chapter (section 8.4.), and the recommendations document at the end of the thesis.

Another professional participant observed that, quite apart from offering women information and advice on managing existing technologies or discussing other technologies which women may find supportive or reassuring, women were often left without their devices when they reported their abuse to the police.

"We have clients who are extremely vulnerable, and the police will take their phone, and it can take them a week, two weeks to get it back, and they don't realise the vulnerability of that client half the time. Sometimes they're able to have an alarm that they can take out with them and which they can have in the house, but a lot of the time the alarms are already out...I think that is a huge issue that I've come across, you know, who's protecting this person if they haven't got any technology?" (P12)

Leaving women without access to a mobile phone puts them at heightened risk as they are unable to contact the police, or maintain regular contact with their support

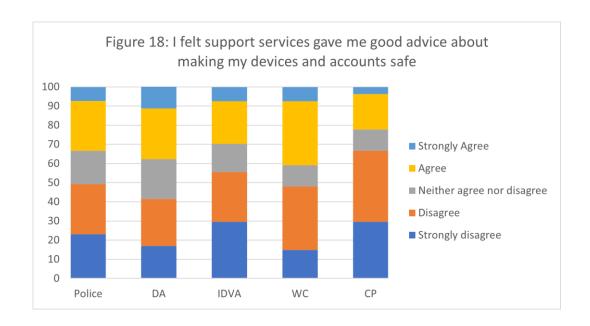
network, who may be supporting women with their mental health and related and challenges. By doing so, police officers are demonstrating a lack of knowledge about domestic abuse, or an ability to properly risk assess. Recommendations regarding this issue are discussed later on in chapter 8, and within the final recommendations document.

Regarding child protection services, the relatively low rate of support regarding technology is perhaps not surprising. At present, education around the risks and dangers of technology is not mandatory within social work training (QAA, 2019). Child protection social workers are also required by law to prioritise the welfare of the child (Children Act 1989), and if the child is not being directly affected by TFDA, this is unlikely to be a key area of concern. That being said, children *are* often directly or indirectly affected by TFDA (Dragiewicz et al, 2021; Nikupeteri et al, 2021), and it would therefore be pertinent for child protection social workers to have some basic awareness of the steps families can take to mitigate TFDA, or to at least to know where they can refer women for advice and support, so that women and children can secure their technologies post separation.

Due to the myriad issues women faced in obtaining digital support and advice from organisations, the majority of survey participants stated that they had researched how to secure their accounts and devices (68%), or how to increase their personal and home security (46%), for themselves. The second most common way women had obtained information was through their personal networks, with 35% of women having received advice on securing their accounts and devices from their loved ones, and 21% having had personal and home security measures suggested to them by family and friends. There was also an element of women sharing knowledge amongst themselves, with one survey participant having received recommendations from former victims of her abusive partner (S84).

6.2.4. The quality of the advice women received

When women did manage to gain digital safety advice from services, the quality of the information varied significantly. In the survey, women were asked whether services had provided them with good advice when it came to securing their accounts and devices post separation. The chart below (figure 18) shows how women responded.



The extent to which women felt they had received good quality advice varied by service, although for all services, women were more likely to disagree than to agree they had received helpful information. Amongst women who had accessed domestic abuse services, 38% 'agreed or strongly agreed' that they had received useful advice on securing their technologies (21% were not sure, and 41% 'disagreed or strongly disagreed'). With regards to the police, just 33% 'agreed or strongly agreed' that they had received good advice (17% were not sure, and 49% 'disagreed or strongly disagreed'). Amongst women who had an IDVA, 30% 'agreed or strongly agreed' that they had received good advice (15% were unsure, and 55% 'disagreed or strongly disagreed'). Finally, with regards to child protection services, 22% 'agreed or strongly

agreed' that they had received good advice (11% were unsure, and 67% 'disagreed or strongly disagreed). These statistics help add further context to the results from the previous section, demonstrating that the receipt of information and advice does not guarantee good quality information or advice.

As well as being a service level issue, it was also highlighted that the quality of the information and advice women received depended on which professional women were allocated to (P8). Confidence working with TFDA varies amongst professionals (Tanczer et al, 2021), and therefore women within the same service could have vastly different experiences. Whilst TFDA is a complex area, it is important that all professionals women come into contact with can provide high quality information and advice themselves, or that they make referrals and signpost women to appropriate support. Provision of poor quality or incorrect information and advice has significant potential to increase the risks to, or cause harm to, women, potentially alerting perpetrators to the fact that women are accessing help, planning to leave, or where women have moved to post separation (Harris and Woodlock, 2019; Woodlock et al, 2020). To prevent dangers to women, training on TFDA should be standard across services who are likely to come into contact with victim-survivors of abuse, including the domestic abuse sector, police forces, and social services. Further details on this are available in the discussion and conclusion chapter (section 8.4.), and the recommendations documents.

6.2.5. Problems with the advice women received

As discussed, when women received advice from services, it was not always helpful or correct. During interviews three core areas were identified which influenced or typified women's experiences of (lower quality) support; underfunded services,

inaccessible information or advice, and incorrect information or advice. Each of these issues are explored in turn below.

Underfunded services

Chronic underfunding of victims' services has had a significant impact on all areas of service delivery, including the provision of support for those subjected to TFDA. Amongst domestic abuse services who responded to Women's Aid's annual audit (2024), 51% had rejected community-based support referrals, and 61% had rejected refuge referrals, predominantly due to lack of available services or capacity to support. 41% of services were running community-based support, prevention, or education services without dedicated funding. In these services, 48% had lost staff due to funding issues.

"A lot of organisations within this sector are finding it really difficult to hold onto their staff and to recruit new staff. It's a huge thing at this moment in time." (P9)

Similar challenges around funding, workforce recruitment, and workforce retention are being faced in police forces (Home Office, 2024; Wilson and Miles Johnson, 2024), and child protection services (Warwick et al, 2023; Department for Education, 2024).

During interviews, women described the challenges they had faced when trying to access information and support from underfunded services.

"I've been referred to a local women's domestic violence service but there's waiting lists. I've been referred to another one, there's a waiting list. So, not a great deal of support [with technology], no." (Claire - VS5)

When women eventually did gain access, services were not always able to provide resources or support specific to TFDA, with staff not having the time, budget, or expertise to create their own resources, or to identify the few resources which already exist. As previously discussed (see section 3.7.3. and 3.8.3.), many professionals also lack confidence identifying and responding to TFDA, due to inadequate training. This meant that some women, like Sian, were left without any support regarding their technology.

"No, I don't think there is any support... there should be something that helps people with how to respond to this. Like how do you deal with your ex logging into your social media or sending abusive texts? What are you supposed to do? I don't know. But no, I never had any support with that kind of thing." (Sian - VS4)

Other services were able to provide information and support, but either the level of detail was insufficient, or the information was not provided in a format which was helpful to women.

"I've got an IDVA. Support is limited, really limited. I got; they call it support from the local authority domestic violence team. They were supposed to come out and see me, but they've not been, and they literally sent me like training notes from a workshop." (Claire - VS5)

This information did not hold much meaning for Claire and left her looking elsewhere for support. When services do not have an appropriate level of funding to run basic provisions, they also do not have the time to create and offer specialist (but necessary) resources and support for TFDA. This leaves women trying to decipher technical content for themselves, and if they are unsuccessful, women are left at increased risk of experiencing further, or escalating, abuse (Bailey et al, 2024).

Comprehensive but confusing information and advice

In other cases, women had been able to access comprehensive information from services, but this was not presented in a user-friendly way. This appeared to be a particular issue if women accessed services which were specialists in cyber security, such as the Cyber Helpline. Claire reached out to the Cyber Helpline for support with securing her accounts and devices after her local domestic abuse service was unable to help her. Whilst she could see that the information was relevant and useful, she found the format the information was provided in difficult to engage with.

"They were [good], but ...they sent me loads of information and loads of stuff to do at a point when I just couldn't cope... I was trying to work full time. I've got my son who has disabilities. I didn't even have internet in the accommodation I had. I'd got no money, and then you get all these instructions to go through your phone, go through your laptop, and it's just too much. I needed somebody to come out and sit down with me and support me through that. So, it was helpful

in that they gave me information, but everybody was giving me information and nobody could really give me any support." (Claire - VS5)

In this situation, the problem was not the quality of the information, or Claire's ability to gain access to the information, but rather the format the information was presented in. Most women subjected to TFDA are not tech specialists, indeed, many women are underconfident in their abilities to understand and engage with technology (Cockburn and Ormerod, 1993; Douglas et al, 2019; Stephenson et al, 2023). This was reflected in the survey, with 29% of participants indicating that they usually asked for technical support from another person when trying something for the first time. Women would benefit from access to support when attempting to regain control over their accounts and devices, with in-person support being offered so that women can be talked and walked through what they need to do. How this may look, including options around in-house support or shared tech privacy clinics, are explored further in the discussion and conclusion chapter (sections 8.3. and 8.4.).

Incorrect information and advice

Whilst some of the information provided was just too technical for women to decipher, the majority of the example's women and domestic abuse support workers flagged as poor practice actually related to incorrect information, arising from a lack of professional knowledge surrounding technology and TFDA. As previously discussed, Helen received incorrect, ill-advised, and potentially dangerous advice from police officers after her husband installed keystroke logging software onto her devices. In a second example, provided by a domestic abuse support worker, response officers had advised a client that she could stop her husband digitally tracking her simply by asking him.

"With the tracking especially...it's just if you tell them to stop, they'll stop...that's what the police told her.... I think we're already past that point, surely." (P10)

Here, officers had displayed both a lack of awareness of TFDA, and a gap in professional knowledge surrounding domestic abuse more broadly. Domestic abusers rarely desist from engaging in abusive behaviours (Bancroft, 2002), as their behaviours are underpinned by their belief in male superiority and a need for power and control over their female partner (Stark, 2007; Barlow and Walklate, 2022). Both pieces of advice were dangerous, placing Helen and the client discussed by this professional participant at risk of further harm. By removing the perpetrators access to their devices, these women would have been perceived as challenging their abusers power and control (Bailey et al, 2024), creating a scenario where their (ex)-partners may have escalated their abuse in an attempt to regain control. Preventing, and stopping, TFDA is a specialist skill requiring careful and informed management by those with the appropriate insight and training.

In this study, examples of incorrect advice were only provided in relation to the police. However, one service manager from the domestic abuse sector did acknowledge the potential for incorrect advice to be provided by other services, including by the domestic abuse sector. As well as issues around staff training (see section 2.3.3.), the sector's recruitment issues were also identified as a source of worry.

"You recruit somebody, and you are desperate to get a bum on a seat...What level of training have they had? Are they the first person that a victim may talk to, and this person is really not equipped?... You know people do fall between

the cracks and I just don't want to be in that situation where we are responsible for that." (P9)

Linking back to earlier discussions around financial precarity (see section 2.3.3.), funding issues within the domestic abuse sector and across other statutory and non-statutory bodies means that services are not only becoming increasingly difficult to access, but once women do gain access, they are more likely to be interacting with an inexperienced and insufficiently trained member of staff. As pointed out by the service manager quoted above (P9), this could result in women receiving incorrect information or advice and subsequently 'falling between the cracks', potentially ending in serious harm, homicide, or suicide.

6.2.6. Unequal access to support

Because of the many barriers women faced whilst trying to access timely, high-quality support from services, women were regularly turning to family and friends in an attempt to fill the gaps. However, during interviews, it became apparent that a chasm existed between the support women were able to access through their personal networks. Some of the women were able to obtain good, high-quality information and advice from their social networks, whereas other women, who were more socially isolated or had less social capital, were able to obtain almost nothing. Two of the women participating in this research, Rebekah and Helen, had been able to receive information and in-person support from younger relatives who were technically competent.

"It was one of my daughter's friends, because they were 16, so he was like 'yeah I know what you need, typed in this thing', and that's how I knew about it." (Helen - VS1)

"At the time I was staying with my cousin in [city] and his young kids. Well not young, you know like early 20s. They were very good at helping me change passwords and stuff...having these younger generations helping me was really, they don't have to think about it, they do these things so quickly." (Rebekah - VS3)

This meant that both Helen and Rebekah were able to secure their homes and devices quickly and efficiently, reducing the financial burdens on them post separation. However, for women like Claire, who had less social support and several additional vulnerabilities, the only support available to her was the written information from the Cyber Helpline, which she was expected to work through and comprehend alone. This left Claire unable to secure her devices and feeling that she needed to replace them for her and her young son. This presented a significant additional financial burden for Claire, who at that time was living in temporary accommodation and periodically relying on foodbanks.

Essentially, the over reliance on social networks to fill the gaps created by inadequate access to in-person digital support provided by technologically skilled professionals means that a tier system is created, whereby women who are embedded within social networks which include individuals with technological knowhow are able to secure their accounts and devices for free, increasing their safety and potentially reducing the need for them to discard and replace compromised technologies. In contrast, those with lower social capital may not be able to access

the required information and support which would enable them to secure their devices, leaving them more vulnerable to further abuse, and potentially leading them to incur the financial costs of replacing compromised devices. Digital and physical safety should not be reliant on women being able to access private or social support, with TFDA regularly being the direct cause for women's social isolation (Bailey et al, 2024). Adequately funded services with in-person technical support should be available to all women, to ensure that the most disadvantaged are not left at additional risk.

6.3. Conclusion

To summarise, service providers must be able to adapt to different women's needs at the point of separation, when supporting them to regain digital autonomy from their (now ex-) partner. One of the most obvious predictors for the types of support women may need relates to whether women are entering emergency refuge accommodation, or remaining in the community, post separation.

For women entering emergency refuge accommodation, there is an intense need to instantly 'disappear'. This is to prevent their ex-partner from following them to refuge, perhaps by tracking them via their devices, and causing them further harm. Women in refuge are some of the most at risk for significant harm and homicide (Bowstead, 2019), and so any possibility of their partner finding them must be prevented. Often, this means leaving devices like mobile phones and laptops behind, as the nature of entering refuge accommodation means there is rarely time for women to secure their devices before they arrive at refuge. However, as technology is now so ubiquitous, the loss of these devices has a notable impact for women, cutting them off from support networks and preventing them from engaging with other forms of support (Bailey et al, 2024). As such, avenues by which women's devices can be

secured, or new devices provided, must be identified and acted on. Suggestions are discussed in chapter 8.

For women remaining in the community, there is less need to fully 'disappear', as there is a greater chance their partner will know at least their general location, if not their exact address. Securing technology can be complex for women in these cases, as the need to re-establish private and secure access to their own devices must be balanced against the need to manage their safety, with removal of digital access and control being a potential trigger for escalation of abuse (Harris and Woodlock, 2019; Woodlock et al, 2020). Several of the women taking part in this research sought professional support with managing their technology post-separation, however the advice and support women received was not always helpful, or safe. In many cases, the information and advice women received was inaccessible, incorrect, or simply not available, as services struggled to train staff or provide access to appropriate resources.

Poor access to meaningful support leads to inequality, as women turn to family and friends for advice and support. This creates a tiered system where women with greater social capital are able to access support, increasing the likelihood that they will be able to secure, and therefore keep, their own devices. In contrast, women who face greater disadvantage and vulnerabilities, and who are perhaps more socially isolated, face greater challenges accessing informal support, and are therefore more likely to incur the financial burden of replacing technology. It is crucial that professional, accessible, and high-quality support is available for women to access quickly and when needed, to ensure that all women have equal opportunities to retain their devices and make them safe. Suggestions for how this could be done, including embedding tech specialist within services or establishing tech privacy clinics within local authorities, as well as placing greater responsibility on the tech sector, are discussed further in section 8.3. and 8.4.

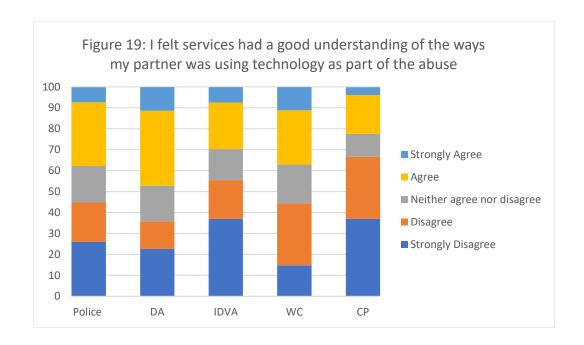
Developing support for victim-survivors of technology-facilitated domestic abuse

As evidenced, ensuring that women can make first contact with services, and that services are equipped to support women to safely leave their relationships and restore digital autonomy, are two of the most important, but most challenging parts of women's journeys away from TFDA. As has also been shown, at present, there are too many examples of women not being able to access compassionate and informed information, advice, and support, with the domestic abuse sector, police forces, and child protection services all being flagged by participants as requiring improvement (refer to section 6.2.4. and 6.2.5. for figures). Addressing these issues, and improving the support provided to women, will require both individual and service level change, and this chapter details some of the changes that can be made, so that services are more accessible and responsive to women's needs.

This chapter will address three professional knowledge gaps highlighted by participants as requiring improvement. These knowledge gaps relate to technology and TFDA, coercive control, and relevant legislation. The chapter will also consider the role of the 'Domestic Abuse, Stalking and harassment and Honour-based violence' (DASH) risk assessment, and the manner by which it feeds in to and exacerbates poor practice by front line professionals, in its current format. The need for an updated DASH risk assessment, or the adoption of the Domestic Abuse Risk Assessment (DARA) will be discussed, highlighting how a greater emphasis on technology within risk assessment tools may help to minimise the impacts of professional knowledge gaps.

7.1. Women's perceptions of service knowledge

To assess how services are currently performing, women participating in the survey were asked whether they felt the services they had engaged with had demonstrated a good level of knowledge surrounding TFDA during their interactions. The chart below (figure 19) shows the women's responses.



There were clear variations in response across different services, though for all services, less than half of the women accessing them rated them positively. Of those who had accessed domestic abuse services, only 47% 'agreed or strongly agreed' that services had a good understanding of TFDA (17% not sure, 36% 'disagreed or strongly disagreed'). Amongst women who had been involved with the police, 38% 'agreed or strongly agreed' that the service had a good understanding of TFDA (17% not sure, 45% 'disagreed or strongly disagreed'). Just 30% of women accessing IDVA services 'agreed or strongly agreed' that their IDVA had had a good understanding of TFDA (15% not sure, 55% 'disagree or strongly disagree'). Lastly, amongst those who had accessed child protection services, 22% stated that they 'agreed or strongly

agreed' that services had a good understanding of TFDA (11% not sure, 67% 'disagreed or strongly disagreed').

It was expected that the domestic abuse sector would perform better than it did, owing to its specialist remit. However, less than half (47%) of the women who accessed these services felt they possessed a good level of knowledge when it came to TFDA. This, along with the even lower scores for the police (38%) and IVDA (30%) services, generate concern, as each of these services engage with high-risk clients and are expected to assess risk for women subjected to TFDA. If they do not understand TFDA, professionals will not be conducting full and comprehensive risk assessments, placing women at heightened risk of ongoing harm (Tanczer et a, 2021; Bailey et al, 2024; Brookfield et al, 2024).

It is also concerning that child protection social workers did not demonstrate a better level of knowledge about TFDA. It has been documented both here and elsewhere (Dragiewicz et al, 2021; Nikupeteri et al, 2021) that children are regularly targeted by their fathers, either directly or indirectly, as part of TFDA. Following the Domestic Abuse Act 2021, children are now recognised as victims of domestic abuse in their own right, even if they witness abuse without being directly targeted. If child protection services are not able to recognise and understand TFDA, then they will not be assessing the specific risk factors associated with these forms of abuse. This may result in children and their families being inadequately safeguarded from ongoing harm.

Through the interview data, it became apparent that there were three areas were professionals where particularly lacking in knowledge. Firstly, professionals from across the domestic abuse sector, policing, and child protection services all demonstrated a lack of knowledge surrounding technology, which reduced their ability to prevent and respond to TFDA, and/or to support their clients with regaining their

digital privacy and autonomy. Secondly, professionals in the police and child protection services did not appear to have a clear grasp on the presentations and causes of coercive control, which so often underpins TFDA (Dragiewicz et al, 2018; Harris and Woodlock, 2019; Woodlock et al, 2020). Thirdly, police forces displayed poor levels of engagement with relevant legislation, particularly in relation to pattern-based offences like stalking and coercive control. This is concerning as cases may not be investigated and prosecuted until more overt forms of abuse, such as physical abuse, occur (Bailey et al, 2024). Each of these three gaps are explored in more detail below.

7.1.1. Gaps in professional knowledge: technology and TFDA

Professionals working in the domestic abuse sector expressed concerns about themselves, the police, and child protection services, when it came to knowledge about, and confidence with, technology and TFDA. Professionals working in the domestic abuse sector felt that they, along with most other professionals involved in women's cases, were struggling to keep up with the pace of innovation when it came to digital technologies (P6, P9, P11, P15).

"I think most services are like ourselves, in that we're not keeping up with the fast changes in technology." (P11)

For the domestic abuse sector, the introduction and expansion of technologyfacilitated harms had not changed the core aspect of their work, which was to believe and support victim-survivors. "It doesn't change the basics in that we listen and believe, because even if I don't understand how they [perpetrators] do something, I wouldn't disbelieve for a second that they would." (P3)

However, professionals acknowledged that several aspects of TFDA fell outside of their area of expertise. They regularly struggled to understand exactly what women were telling them, or to work out how perpetrators were using various technologies.

"I'm definitely not a specialist. I'm a specialist domestic abuse worker, but I'm certainly not a specialist in that [tech]." (P7)

This left support workers with a sense that they were 'falling behind' (P1, P3, P4, P6, P7, P10, P11, P14, P15, P16), or that they were "not where we probably should be." (P6). This sentiment echoes the earlier work of Tanczer et al (2021), whose paper, titled 'I feel like we're really behind the game', documented similar findings.

Several professionals felt that the gender and age profile of those working in the domestic abuse sector was a relevant factor in the general lack of confidence working with technology and TFDA (P1, P3, P4, P5, P13, P14). Domestic abuse service providers are exempt under the Equality Act 2010, allowing them to recruit a predominantly or solely female workforce (Equality and Human Rights Commission, 2022). It is well documented that women generally experience and express lower levels of technical confidence (Cockburn and Ormerod, 1993; Oudshoorn et al, 2004; Douglas et al, 2019), with older women amongst the most digitally excluded (Dafoulas et al, 2022). All of the professionals participating in this research felt that they would

benefit from specialist training and access to specialist resources so that they could better understand and support women who were engaging with their services.

When it came to the police, poor practice surrounding TFDA appeared to be linked to wider misunderstandings about domestic abuse. Officers regularly subscribed to outdated myths regarding domestic abuse which, as well as being fundamentally incorrect, were particularly unlikely to map onto victims of TFDA.

"When the police came round, they did say 'well you don't present as a normal domestic violence victim'. What do you want me to be? I don't know. Is my house too big? Is my accent too posh? What are you saying? I don't know. And that was really, that was shit actually." (Helen - VS1)

The idea that domestic abuse does not occur amongst more affluent families is particularly untrue for TFDA, as disposable income is necessary to purchase and run the technologies required to perpetrate TFDA. TFDA is also a somewhat hidden form of abuse, meaning there will not necessarily be visible signs of abuse on women's bodies or within their homes. By ascribing domestic abuse to poverty and invoking the image of the 'battered woman' (Walker, 1977), police officers will be missing cases of TFDA and therefore forgoing the opportunity to intervene.

When police officers did recognise that TFDA was being perpetrated, they were still not always capable of responding appropriately owing to low levels of knowledge about technology and TFDA. Both victim-survivors and those working in the domestic abuse sector were able to provide examples of interactions where police officers had demonstrated sub-par levels of digital literacy and awareness of TFDA. Officers repeatedly failed to understand what women were telling them and provided

ineffective or inappropriate advice. For example, Helen's husband had downloaded keystroke logging software onto her devices, which meant that he was able to see every key she pressed. In light of this information, the advice given to her by the police was both obsolete and dangerous.

"They were absolutely transfixed by the idea that I had to change passwords, and that was their only advice...The way I was treated, it was like I was wired to the moon." (Helen - VS1)

In this case, response officers had failed to comprehend the level of access Helen's husband had to her devices. If she changed her passwords, Helen's husband would know her new passwords due to the keylogging software. That she was trying to change her passwords may also have alerted her husband to the fact she was attempting to diminish his control over her, which could have resulted in an escalation of the abuse (Bailey et al, 2024). In essence, following the police advice could have increased the risk posed to Helen rather than reducing it. This was not an isolated incident, with several of those working in the domestic abuse sector also having witnessed police officers providing inadequate or dangerous advice to women (P2, P3, P6, P7, P10, P11, P12, P13, P16). Rather than guessing, response officers who interact with women subject to TFDA must be able to identify the limits of their technical knowledge and should know where to refer women for safe and accurate advice.

Finally, gaps in professional knowledge surrounding technology and TFDA were also highlighted with regards to child protection services and the family courts. Inadequate knowledge of the causes and dynamics of domestic abuse and coercive control, including how technology is used to remotely facilitate these, was evident in

some of the requirements placed on women by family courts. For example, social workers and family courts were regularly pushing women to maintain digital contact with their ex-partners in order to facilitate child contact.

"With social work and the courts, they will compel people to negotiate, to communicate with the abuser. On one hand they're telling them they're responsible for leaving that relationship and not letting that person back in, but on the other hand they're expected to manage that behaviour, to facilitate contact. That person's invited into their home on a screen every Wednesday or every Saturday or whatever, and that is difficult... it's incredibly damaging psychologically." (P14)

Under the Children Act 1989, the priority of those involved in family court proceedings must be the welfare of the child. Unless there are 'exceptional circumstances', continued contact with both parents is usually deemed in the child's best interests, even where domestic abuse is known or suspected (Barnett, 2020). Where domestic abuse is present, contact between children and their non-resident parent can take place in a supervised contact centre, which could help to reduce ongoing TFDA between parents. However, reports published in 2020 and 2023 listed numerous potential issues; contact centres are not well equipped to recognise and respond to incidents of domestic abuse, and in 2023 only 11% of contact centre staff and volunteers had received training on domestic abuse within the last twelve months, leading to potential safeguarding issues being missed (Bright, 2023). The reports did not mention whether staff had received any specialist training on TFDA.

Whilst the use of contact centres may reduce or remove the requirement for women to maintain digital contact with their perpetrator, there are often limits on the

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length of time contact centres will support families, with courts preferring that parents manage contact between themselves (P14, Barnett, 2020). Compelling women to facilitate contact between their children and their ex-partner means that women are forced to keep a channel of communication open with their abuser. As evidenced in a previous chapter (see section 4.2.), digitally mediated threats and incitements to engage in self-harm or suicide increase in frequency post separation, and arranging child contact via technology creates an easy opportunity for perpetrators to engage in these forms of abuse. This both prolongs the abuse and compounds the emotional impacts of prior abuse, adding to the cumulative trauma women suffer (Woodlock et al, 2020; Afrouz, 2023).

Alongside the psychological harm, online contact arrangements can also put women at risk of physical harm. If women have moved address, perpetrators may be able to establish their new location based on geolocation (Bailey et al, 2024), or contextual information (P1, P14). If they are found, women and children may have to relocate, which is highly disruptive (Barnett, 2020). The fact that these risks have not been recognised and addressed by social work and the family courts demonstrates a fundamental lack of understanding around post separation abuse, particularly when it is technology-facilitated.

7.1.2. Gaps in professional knowledge: coercive control

Deficits in knowledge and comprehension also went beyond TFDA, into domestic abuse more broadly. During interviews, several domestic abuse workers shared their concerns about the wider knowledge base of external agencies involved in women's cases, including the police (P6, P10, P12, P16), and social services (P4, P14). These professionals felt that external services were subscribing to misconceptions surrounding domestic abuse.

"Having sat through that Domestic Homicide Review there are organisations who are definitely not in the know. Not just not in the know about tech, but not in the know about the complexities of domestic abuse. I found that quite worrying if I'm honest." (P9)

Specific concerns were expressed regarding police officers' knowledge of coercive control. During interviews, accounts of interactions were provided which exemplified police officers' basic misunderstandings around what coercive control is, and how it presents.

"Women say to me I spoke to the police about this, and they said, 'you're not really being coercively controlled are you, if you're free to go out of the house'.

Absolutely no understanding of it. Particularly with tech abuse, no understanding of the foundation of coercive control that enables this to happen."

(P16)

Rather than being physically confined within the home, coercive control is more commonly characterised by psychological entrapment, whereby one partner utilises "tactics of...intimidation, isolation, and control" (Stark, 2007, pp.5) to force compliance. Perpetrators tailor the abuse to their partner (Stark and Hester, 2019), something which technology has enabled them to do more successfully than ever before, by facilitating increased access to women's daily routines, social networks, and personal preferences (Bailey et al, 20204). Consequently, this has only increased the harms caused to women, though this is not always recognised (Harris, 2018; Harris and Woodlock, 2019; Yardley, 2020).

There are numerous ways police officers have misunderstood or mis-engaged with cases of coercive control, which have been widely documented (Wiener, 2017; Barlow et at, 2020, Barlow and Walklate, 2022; Myhill et al, 2022). Significantly, researchers have noted that police officers often adopt an incident-based approach to policing domestic abuse, influenced by the incident-oriented workings of the wider criminal justice system. This leads to cases of coercive control being missed, as individual acts are unlikely to meet the threshold for criminalisation, only becoming a crime once identified as a pattern of behaviour.

Taking an incident-based approach has also caused specific issues when it comes to policing TFDA. For example, victims may engage in acts of self-defence or reactively lash out at their partner in response to being abused (Dichter, 2013). Without an appreciation of the wider context within which these acts occurred, it may appear that both partners are equally abusive to one another, or that the victim is the primary aggressor, especially if the abuser has utilised technology to record their partners 'outbursts' (see section 4.3.2. and 4.3.9. for case examples). In such cases, police officers have been reported as routinely misinterpreting coercive control as bidirectional conflict or misidentifying the victim and perpetrator (Barlow et al, 2020, Barlow and Walklate, 2022).

"One of the main problems is getting a victim's voice heard... 'oh well you know, he did it to her and she did it to him'. They don't look at the bigger picture." (P12)

An inability to identify power within the relationship, and hence to correctly identify the primary abuser and the primary victim, can result in the victim being arrested. For example, Claire was threatened with arrest and removed from her property after her partner managed to convince response officers that she was abusing him. This was

despite the fact Claire that had called the police and had text messages in which her partner apologised for violently assaulting her. Being wrongfully arrested is traumatic, and can result in myriad problems for women, including further abuse, homelessness, and the acquisition of a criminal record (Dichter, 2013).

It was not possible to glean additional information as to why those participating in the survey had been so critical of child protection services, as none of the women with lived experience who participated in an interview had been involved with them. However, professionals working in the domestic abuse sector discussed having witnessed poor levels of knowledge of coercive control amongst social workers (P4, P14)

"We have people who come in with their social workers and their social worker may have not dealt with a domestic abuse case before, and you're having to talk them through it because they're going 'oh I didn't know'." (P4)

This paucity in knowledge surrounding coercive control, including that which is tech-enabled, may reflect the relatively short amount of time social workers spend learning about domestic abuse, and the fact that the guidance on social work education does not mention digital technologies (QAA, 2019). Public calls have been made for mandatory requirements surrounding domestic abuse education in social work training (Collinson and Kendall, 2024; Safelives, 2024), to reflect the commonality and severity of the issue.

7.1.3. Gaps in professional knowledge: legislation

Over the last decade there have been significant changes to legislation which relates to domestic abuse. Coercive control was made a criminal offence under section 76 of the Serious Crime Act 2015, and non-consensual distribution of intimate images became a sexual offence under section 33 of the Criminal Justice and Courts Act 2015. The Domestic Abuse Act 2021 brought about further change, expanding coercive control legislation to include post separation abuse, and criminalising threats to share intimate images or videos. A more detailed discussion on the myriad changes in legislation can be found earlier in section 2.1.

During interviews, domestic abuse workers expressed that, in some cases, legislative updates had bolstered police officers' awareness of and ability to respond to particular forms of TFDA. The classification of image-based sexual abuse as a sexual offence was highlighted as a specific example.

"I definitely think the change in the law has been a massive help... the [intimate] video that I spoke about before... the police response was good. So, I think now that it's in law it's recognised that even though they're in a relationship or they've left the relationship, that this is being used as a tool of abuse." (P2)

However, support workers also shared examples where police officers had lacked knowledge of legislation or appeared uninterested in utilising relevant legislation to protect women. Coercive control, stalking, and harassment were highlighted as key areas of concern. In these cases, support workers were having to leverage their own knowledge of the law to force a response from police officers (P3, P6, P7, P8, P12).

"I don't think the laws are being applied as vigorously as they could be... I've yet to come across a full case of coercive control. They're still dealing with individual incidences and I'm saying well under the law this is coercive control. Oh right, well we'll have a look at it but there might not be enough evidence. To me that says well I might have a look at it if I'm bored or something." (P3)

Noticeably, coercive control, stalking, and harassment all relate to courses of conduct. As previously discussed, police officers often take an incident-based approach to policing domestic abuse, either because they lack knowledge of how to identify coercive control, or because they believe coercive control is too difficult to evidence within an incident-focused criminal justice system (Wiener, 2017; Stark and Hester, 2019; Barlow and Walklate, 2022; Myhill et al, 2022). By looking for crisis incidents like physical or sexual abuse, police officers are failing to identify and/or act on wider patterns of coercive control, leaving women at risk without support.

When coercive control was recognised, the fact that technology-facilitated elements were often taking place remotely was also creating a problem. These incidents were more likely to be (incorrectly) categorised as 'less risky' (Harris, 2018; Harris and Woodlock, 2019; Yardley, 2020), because there was less immediate threat of physical harm. Cumulatively, this meant that perpetrators were not being charged, prosecuted, or convicted under the relevant legislation (Stark and Hester, 2019), leaving women subject to continued abuse. As one interviewee noted:

"Women are looking for protection from the people who should be protecting them, but there's a lack of understanding about what tech abuse really is." (P16)

Whilst those working in the domestic abuse sector are likely to pick up some knowledge of relevant legislation during their day-to-day casework, most domestic abuse workers are not legal professionals and cannot be expected to comprehend the breadth of legislation which may be relevant to prosecuting various forms of TFDA (see section 2.1 for further details). Women who are interacting with the police independently of domestic abuse services are even less likely to have knowledge of the legislation which could be used to prosecute their current or ex-partner, further reducing the likelihood of a conviction.

7.2. The DASH risk assessment

Arguably, professionals can only do as well as the tools they have allow them to. Since 2009, it has been standard practice for professionals in the UK to assess and manage risk using the 'Domestic Abuse, Stalking and harassment and Honour-based violence' (DASH) tool (Richards, 2009). Professionals complete a series of questions with the victim-survivor, and by combing the numerical score with professional judgment, cases are graded as either 'standard', 'medium' or 'high' risk. This grading is then used to inform the level of support provided, with interventions ranging from group or short-term support through to more intensive support, including referral to a Multi-Agency Risk Assessment Conference (MARAC). The introduction of the DASH risk assessment was a defining moment in responding to domestic abuse, helping to prevent women at risk of fatal violence from falling through the cracks, and enabling services to make strategic use of finite resources (Hoyle, 2007; Stark and Hester, 2019). Indeed, a professional participant in this research described the DASH as "hugely valuable" (P3).

However, whilst the DASH risk assessment tool proved invaluable in many ways, it has also been highlighted as lacking the specificity needed to accurately assess

cases of coercive control (Wire and Myhill, 2018; College of Policing, 2022) and TFDA (Tanczer et al, 2021; Todd et al, 2021). In relation to coercive control, concerns have been raised that the yes/no style of questioning lends itself to an incident-based approach of assessing risk, missing some of the nuance that typifies patterns of coercive and controlling behaviour (Wire and Myhill, 2018; College of Policing, 2022). With regards to TFDA, the DASH risk assessment makes limited reference to relevant issues, owing to the fact it was written in 2009, before many modern technologies were widely available. At present, the main assessment includes just one question on technology (question 8, Does [name of the abuser] constantly text, call, contact, follow, stalk, or harass you?), and the supplementary stalking questions do not reference technology at all (Richards, 2009, Additional Stalking and Harassment Risk Questions), despite the fact the majority of stalking cases now involve at least one digital element (Woodlock, 2017; Messing et al, 2020). In cases where professionals do not have a strong understanding of coercive control or lack the knowledge or confidence to ask about TFDA, women risk being mis-graded into lower risk categories than is merited (Tanczer et al, 2021; Bailey et al, 2024; Brookfield et al, 2024), putting them at risk of further harm.

Within this research, professional participants' expressed mixed opinions on the utility of the DASH risk assessment when it came to TFDA. In some cases, staff members did not find the lack of technology-related questions to be a problem, as they knew to ask about this anyway.

"I think with the tech, it's a question that kind of comes up all of the time, because we ask those questions all of the time with women." (P1)

These (often more experienced) professionals felt confident that they were able to adapt the DASH risk assessment to include information on TFDA, citing that they would often include this information in the 'professional judgement' box at the end of the form (P5, P14). They also highlighted that their safety plans were designed to incorporate concerns around technology, meaning that the risk was still being assessed.

"My experience of using the DASH is you can put it in somewhere else... I suppose if in any doubt you can still refer to it on professional judgement... it's ticking a box for MARAC purposes or whatever, and then we go and do the safety plan anyway, so I still feel as though we're able to get that in there." (P14)

In principle, this sounded like some professionals were managing to risk assess using the current DASH risk assessment and their own safety planning tools. However, when professionals were asked which information they would typically gather in relation to technology, it became clear that their focus was primarily on instances of harassment via mobile phones or social media (P2, P6, P8, P15). Professionals were less likely to ask women about other technologies, such as smart home devices, which could be equally as dangerous (Tanczer et al, 2018; Lopez-Neira et al, 2019; Stephenson et al, 2023). This means that some risks to women will be getting missed, either because professionals do not know to ask about other technologies, or do not feel confident doing so.

In other cases, professionals admitted that they would rarely incorporate questions about technology into their risk assessments, unless clients bought it up themselves (P7, P8).

"I suppose it's something that I'll do as and when it's mentioned as opposed to actually directly asking them that question." (P7)

Waiting for women to disclose TFDA is problematic, as studies have shown that women do not always feel comfortable raising concerns about their partners' use of technology unless directly asked (Messing et al, 2020). Women may also be unable to disclose TFDA as they may not be aware that their partner is or could be using technology to facilitate the abuse.

"We have to be more mindful of it when we're talking to women. Could it be a potential that it could happen? ... it's kind of based on the information they've got, that they're bringing to us." (P1)

For example, Jenn, one of the victim-survivors who participated in this research, did not know that her partner was observing her via the pet cameras in their home. Therefore, she would have been unable to disclose this information to professionals. However, Jen did have concerns around the information her partner knew about her, and had this been explored further, the abuse may have been uncovered sooner.

Whilst women may have concerns about their partners' behaviour, if they are unable to work out how their partner is doing something, they may be too embarrassed to bring it up for fear of looking 'paranoid'. The responsibility should therefore sit with the professional who is conducting the risk assessment or safety plan to ask women directly about any concerns they may have, and to talk women through the various ways their partner could be, or may go on to use technology, so that the risks can be assessed, and a thorough safety plan created.

Several of the participants acknowledged that relying on individual knowledge and insight to complete the DASH risk assessment in cases of TFDA was problematic (P2, P4, P5, P8, and P13). Participants expressed concerns that less experienced members of staff may not know to ask women about technology, and that their lack of knowledge surrounding the myriad ways technology can be weaponised may lead to patterns of abuse being missed.

"Yeah, it could do with updating...I think somebody new obviously wouldn't think as I maybe now think." (P12)

One participant, who worked in an English refuge, provided a case example where a lack of technical knowledge by both the professional and the client had created a potentially dangerous scenario. The client had entered refuge with, and had used, a device which she later realised was linked to another device which she had left in the possession of her ex-partner. This resulted in the woman having to move to another refuge, to ensure her safety.

"She did end up having to move again, because you can't sit here waiting thinking 'well he may look on that iPad, he may not'. But that was just through her completely forgetting that she had an iPad, so now one of questions is 'do you have any devices that are also logged in to that same account', and that wasn't one of our previous questions before that happened." (P4)

Whilst potential crisis was averted in this situation, waiting for mistakes and addressing these dangers retrospectively is not safe in cases of domestic abuse. Had

the women not mentioned her iPad, or had her husband found it, she could have been placed at significant risk of harm or even homicide. Instead, information should be pooled across services, so that mistakes that have already occurred can be learnt from, and future mistakes can be prevented from occurring.

As a result, several professional participants felt that the DASH risk assessment form and the supplementary stalking questions needed to be updated to better reflect modern risks surrounding TFDA (P4, P6, P7, P8, P11, P12, P13, P15, P16). One participant also highlighted that including questions and information on TFDA within the DASH risk assessment could help ensure that workers were not relying on their own experiences as their only reference point for what TFDA might include.

"As far as the form is concerned there isn't enough on there about tech abuse, and you know it's talking to you, there is kind of what I feel is tech abuse, but I'm not sure, so is there a definite criteria of what tech abuse is that we all work to? Maybe there isn't yet." (P16)

Including set information and questions would reduce the need for professionals to rely on their own knowledge, and pooling knowledge across services would enable crises to be averted, rather than services being left to react to their own mistakes.

Some of the professionals also reflected on the types of questions they would like to see added to the DASH risk assessment. Alongside questions on the types of technologies women have, how they are being used as part of the abuse, and whether their partners are likely to have direct access, one professional also suggested that the DASH risk assessment should ask about the perpetrator's profession, hobbies, and level of technical skill. They stated that in their professional role, when they

became aware that a perpetrator worked in IT their concerns about the women's safety grew.

"Depending on the profession of the person the woman's with too, if they are into tech then you know that alarm goes off...high tech individuals, they can do a range of things that maybe people that don't have that [skillset] can't." (P15)

This tallies with the experiences of two of the women who participated in the lived experience interviews, whose partners worked in technology-related fields (VS4 and VS6). Whilst cases where perpetrators are not known to be technically skilled should not be treated any less seriously, identifying those women whose partners may be able to engage in more sophisticated attacks may help with resource allocation, including referring cases for more specialist support.

Professionals were able to highlight specific ways updating the DASH risk assessment would positively impact on risk assessment of TFDA. Firstly, they suggested that explicitly including TFDA within the form would prevent it from being overshadowed by physical, sexual, and financial abuses.

"To be honest I think the tech abuse gets a bit of a side-line. Unless it's the whole 'she's being totally stalked', because there's so many other things going on as part of the control and the tactics used, I think... our focus is mainly on the physical and financial, and you tend to focus a lot on that first because they're the things that are jumping out the most to you." (P2)

It was also felt that highlighting TFDA as a specific area for concern within the DASH risk assessment would underpin its severity, potentially encouraging other agencies to take it more seriously (P5, P7).

"If it's all online and they're miles and miles away would that be considered high risk enough for other agencies to get involved? Versus the person who lives round the street who you keep seeing at the shop? That's really worrying actually." (P7)

Despite these potential benefits, other professionals raised concerns about updating the DASH. Some felt that the DASH risk assessment was already quite complex (P3), and they expressed concerns that asking women about their technology would extend the length of the assessment beyond what was reasonable (P6). These professionals suggested that a separate form, similar to the supplementary stalking questions, may be more beneficial, rather than updating the core DASH risk assessment itself.

Professionals also expressed concerns about how an updated DASH, or a supplementary resource, would be kept up to date (P3). Technology changes rapidly, and whichever resource was settled on would need to be designed in such a way that it was futureproofed against ongoing digital innovation. One way that this could be achieved would be through focussing on women's concerns and the impacts of the abuse, rather than the specific technologies used to facilitate the behaviours. The tech industry could also play a greater role, in ensuring that women and services have access to user friendly information on the devices and apps which they provide. This is discussed further in the Discussion and Conclusion, and the recommendations, at the end of the thesis.

Another option would be to move away from the DASH risk assessment, instead adopting the Domestic Abuse Risk Assessment (DARA) as a replacement. Participants were not asked about, nor did they mention, the DARA during interviews, as information on this new risk assessment was only released the year after the interviews had taken place, and the form was only available for use by front line response officers (College of Policing, 2022). However, the DARA shows potential for being a more reliable assessment tool in cases of TFDA and coercive control, as the risk assessment already includes questions around the victim's technology, and uses a Likert scale, rather than the problematic 'yes/no' tick-boxes, to assess the presence of various behaviours. A comparison of the DASH and DARA is further explored in section 8.4.

7.3. Conclusion

To summarise, of the women participating in the survey, less than half who had accessed each service felt the service had demonstrated a good understanding of TFDA. This is particularly concerning with regards to the domestic abuse sector, the police, and IDVAs, all of whom are assessing and working with high-risk clients. If they do not have a firm grasp of TFDA, then they will not be conducting full and comprehensive risk assessments, placing women at heightened risk of ongoing harm (Tanczer et a, 2021; Bailey et al, 2024; Brookfield et al, 2024).

Three specific areas were identified as gaps in professional knowledge and competence: technology and TFDA, coercive control, and relevant legislation. In relation to technology and TFDA, professionals from the domestic abuse sector felt all professionals involved in women's cases were struggling to keep up with the pace of digital innovation. Within the domestic abuse sector, this was cited as being a result of the age and gender profile of the workforce. With regards to the police,

professionals in the domestic abuse sector had observed an over-reliance on stereotypes and myths relating to domestic abuse, which were particularly unlikely to map onto TFDA. Women with lived experience had also identified this as an issue. The police were also recognised as giving unsafe advice surrounding women's technology, which showed a poor understanding of technology and TFDA. When it came to child protection and the family courts, professionals from the domestic abuse sector raised concerns about requirements for women to maintain contact with their abuser to facilitate child contact, which was allowing post separation abuse to continue.

Those working in the domestic abuse sector also raised concerns about the knowledge base of social workers and police officers in relation to coercive control. For the police, this was linked to the incident-based nature of the criminal justice system, which meant that patterns of behaviour, made up of 'smaller' acts which might not necessarily be criminal by themselves, were not being identified or recognised (Wiener, 2017; Stark and Hester, 2019; Barlow and Walklate, 2022; Myhill et al, 2022). This was further linked to the issue of poor use of relevant legislation, as if the police cannot identify coercive control, then they will not be investigating, charging, and prosecuting it successfully.

To address the deficits in practice, those working in the domestic abuse sector called for training on technology and TFDA for all professionals, and better training in coercive control for police officers and social workers. It was additionally found that the DASH risk assessment requires improvement, to support professionals assessing TFDA on the front line. At present, the DASH tool lacks the specificity needed to accurately assess cases of coercive control (Wire and Myhill, 2018; College of Policing, 2022) and TFDA (Tanczer et al, 2021; Todd et al, 2021). As a result, women are currently relying on professionals having the requisite knowledge and confidence to ask about TFDA, which as identified, is not always the case (Lopez-Neira et al,

2019; Tanczer et al, 2021). It was also found that when professionals do ask about TFDA, the focus tends to be on mobile phones and social media, with other areas of risk, such as the smart home, being missed. Updating the DASH, alongside providing better training to professionals, should result in more comprehensive risk assessments being completed, and all forms of TFDA being taken more seriously.

8. Discussion and conclusion

Technology-facilitated domestic abuse, couched within the wider context of violence against women and girls, are amongst the most pressing issues of our time. The National Police Chiefs' Council (2023) has identified domestic abuse and tech enabled VAWG as two of the most significant threats facing women in the UK, and Deputy Chief Constable Maggie Blyth, Deputy CEO of the College of Policing and the National Police Chiefs' Council's lead for violence against women and girls, has identified violence against women and girls as 'an epidemic' (Blyth, 2024). It is within this context that the new Labour government has pledged to halve violence against women and girls over the next decade (Home Office, 2025).

Domestic abuse affects approximately 1.6 million women in the UK every year (Office for National Statistics, 2024b). 1 in 4 women will be subjected to domestic abuse by an intimate partner during their lifetime (Sardinha et al, 2022), affecting their physical and mental health (Crawford et al, 2009; Ferrari et al, 2016), financial stability (Sharp-Jeffs, 2015 and 2022), housing (Netto et al, 2009; Sharp-Jeffs, 2022) and more. Domestic abuse can also be fatal; two women a week are killed by their current or former intimate partner, and a further three women take their own lives due to abuse (Aitken and Munro, 2018; Femicide Census, 2020). Up to date, evidence-based knowledge about domestic abuse is crucial if we want to reduce the number of women who die through domestic abuse, as well as the number of women left suffering the consequences. In contemporary society, this means understanding the role technology plays in facilitating abuse, and mediating women's interactions with support services.

Since the millennium, digital technologies have become central to our way of life. 97% of adults have access to a mobile phone, with 94% of these being smart phones, and 92% of households are connected to the internet (Ofcom, 2023). Tech ownership

will continue to grow, with the number of internet-connected devices projected to rise 12% year on year, from 27 billion connected devices in 2017 to approximately 125 billion by the year 2030 (Lopez-Neira et al, 2019). Growing opportunities for perpetrators to co-opt digital technologies means that TFDA is rapidly becoming a vital issue for both victim-survivors of abuse, and those working with them. Accessible information is urgently needed to help women recognise when they are being abused via digital technologies, and to enable professionals working with them to provide the best possible service, to keep women safe.

At present, our knowledge of TFDA in the UK is limited, but statistics from specialist charities show this form of abuse is growing exponentially. Women's Aid were amongst the first to collect data on TFDA in the UK, reporting that 45% of women had experienced 'online abuse' within their relationship (as cited in Laxton, 2014). In 2020, Refuge found that this number had risen to 72% (Christie and Wright, 2020). During the pandemic, the number of women seeking support for TFDA rose again, with Refuge recording a 97% increase in complex cases requiring specialist input between April 2020 and May 2021 (Refuge, 2021). A second organisation, The Cyber Helpline, reported that calls relating to TFDA had risen 420% during the first year of national lockdowns (Pina et al, 2021). More recently, research by Refuge (2021) found that one in six women had been subjected to TFDA by their current or former partner, equating to approximately two million women across the UK. Consequently, TFDA is now believed to be a mainstream feature of domestic abuse cases (Maher et al, 2017; Dragiewicz et al, 2019; Tanczer et al, 2021), which can no longer be ignored.

Despite its growth, TFDA remains an under-researched area of domestic abuse. More data is needed to help build a clearer picture of TFDA in the UK, with the majority of existing research originating from Australia (full details of the literature review are available in section 2.3.1.). To date, only a minority of studies have been conducted

in the UK, with most of these being shorter, standalone projects (for example Havard and Lefevre, 2020; Pina et al, 2021; Todd et al, 2021; Bailey et al, 2024). There have also been international calls for more quantitative data on the scale and scope of TFDA (Henry et al, 2020; Tanczer et al, 2021), and for research which centres the voice of victim-survivors (Markwick et al, 2019). As such, this research contributes by filling both evidential and knowledge-based gaps on TFDA in the UK.

The aims of this research were to document the experiences of women subjected to technology-facilitated domestic abuse by their intimate partners, and to understand how being under digital surveillance from an intimate partner impacts on women's ability to interact with support services. The research also aimed to understand the challenges faced by the domestic abuse sector when providing support for these women.

As such, the research objectives were as follows:

- 1. To evaluate the existing literature on technology-facilitated domestic abuse.
- 2. To gather data on the types of technology-facilitated domestic abuse women experience during and post their relationship.
- 3. To investigate how being subjected to technology-facilitated domestic abuse shapes women's interactions with support services.
- 4. To evaluate the knowledge base of professional groups who work with women subjected to technology-facilitated domestic abuse, including the extent to which professionals are able to make safe and informed decisions and recommendations.
- 5. To draw on feminist theories of domestic abuse and science and technology studies to inform the research and the recommendations made.

Before each of these research objectives are explored, specific contributions made by this research will be highlighted.

As well as helping to fill international knowledge and evidence based gaps relating to TFDA (Douglas et al, 2019; Dragiewicz et al, 2019), this research has contextualized and added depth to the small amount of quantitative data currently available on TFDA in the UK. At present, available data comes from large support organisations, who have released figures pertaining to the number of women accessing their services who are currently, or have previously, been subjected to TFDA (see section 2.3.2. for full figures). This research goes beyond the previously available data, examining the types of TFDA women experience during and post their relationships, and highlighting the commonality of these forms of abuse, particularly in relation to surveillance of digital communications and technology-facilitated stalking (see sections 4.1.1. and 4.1.3. for full figures). This research makes a further novel contribution through its inclusion of women who have not accessed services, a group so often missed in research on violence against women and girls and domestic abuse (Orme, 2003; Hoyle, 2007). Including these women in the research provides us with a broader understanding of women's experiences of abuse, and the barriers which prevent them from accessing specialist support.

Alongside adding much needed context to available quantitative data from specialist support organisations, this research also helps to expand our understanding of online violence against women and girls more broadly. This research sits alongside other UK based studies which document women's experiences of online violence and abuse, including the four nations study conducted by Professor Olga Jurasz in 2024, which primarily focuses on women's experiences of online abuses perpetrated by strangers, work colleagues, and friends.

Whilst all the quantitative data provided by this research provides valuable insights into TFDA in the UK, some of the findings raise specific challenges to our current understanding of violence against women and girls. For example, within this research, certain forms of image-based sexual abuse, particularly the sharing of intimate images without consent, were actually more common during women's relationships than post separation (see section 4.3.7.). It is possible that some women were not aware their images were being shared post separation (McGlynn et al, 2021), which could have affected the figures, however these findings still raise questions about the nature of image-based sexual abuse, with the sharing of intimate images (formerly known as revenge porn), previously having been conceptualised as a largely post-separation form of abuse. If non-consensual sharing of intimate images is actually more common during women's relationships, then this requires further exploration. If women are having their intimate images shared to trap them in their relationships, then the impacts on their decisions to seek support and leave their relationships must be explored in greater detail.

At present, there is limited information available on women's interactions with services within the context of TFDA (see Tanczer et al, 2021 and Douglas et al, 2023 for some examples), and therefore this research has made a novel contribution through filling national and international knowledge gaps on this issue. This research highlights the challenges faced by women who are attempting to access specialist support whilst under digital surveillance from their intimate partner. This research also contributes to an emergent field of research, which questions the impacts of fabricated digital 'evidence' in the criminal courts (Breen, 2021; Delfino, 2023), by expanding the conversation to include family courts, and decisions around child custody and child contact arrangements. Digital technologies have provided abusive fathers with the opportunity to raise false safeguarding concerns about victim-survivor mothers, which they can now back up with falsified digital 'evidence' (for example by abusing their

partner and then filming her response as 'evidence' of instability of 'abusive' behaviours). Social workers and the family courts are not yet up to speed on domestic abuse and coercive control (Collinson and Kendall, 2024; Safelives, 2024), and it is therefore likely that there will be failures to identify digital fabrication by perpetrators of domestic abuse, potentially costing women and children each other, and their lives.

This research has further identified novel issues relating to the existing support provided to women, both for those going into refuge, and those remaining in the community. Moving into refuge has become particularly fraught for women, as location tracking apps and devices have made it much easier for perpetrators to follow women to refuge (see section 6.1. for details). This research has demonstrated that the measures currently in place to prevent women from being followed are underdeveloped. For example, one method through which professionals were attempting to safeguard women was 'quarantining' their belongings at several locations before returning them. It was thought that this would allow professionals to identify whether women's belongings had been compromised, based on whether or not women's ex-partners turned up where the belongings were being held. However, the fact perpetrators can monitor their partner and/or children's locations remotely may be the very reason they do not attempt to initiate in-person contact. Therefore, the fact that they do not turn up where the belongings are being held is not necessarily proof that the belongings are not being tracked. Professionals being trained or having support to check women's and children's belongings for tracking devices manually would be more likely create a successful outcome in these situations.

This research also highlighted specific concerns about the format support is being provided to women in, particularly post separation, with support most often being offered remotely and in a written format. The women who participated in this research desperately wanted in-person, hands on support with their technology, with one of the women with lived experience sharing that "everybody was giving me information"

and nobody could really give me any support" (Claire - VS5). This finding raises questions about the direction of travel amongst support services, with services increasingly moving towards online provision (Refuge, 2024a; Women's Aid, 2024b). In cases of TFDA, any online provision must also be supplemented by in-person support options, particularly when it comes to regaining private and secure access to devices post separation. This type of support could be offered in the form of tech clinics, similar to those currently in operation in the US (Freed et al, 2019; Cuomo and Dolci, 2022; Tseng et al, 2021 and 2022). Further details about these clinics can be found in sections 6.2.5., 8.3. and 8.4. This research is also currently supporting the introduction of in-person tech clinics by Yorkshire and Humber cybercrime unit, with pilot evaluations due next year.

Having provided a brief overview of the novel findings and contributions made by this project, the research findings will now be considered in relation to the research objectives, examining how each of the stated research objectives were met.

8.1. Objective 1: evaluate the existing literature on technologyfacilitated domestic abuse

Prior to data collection, the initial task was to conduct an evaluation of existing literature on TFDA. In 2020, available literature was limited, however further research has been conducted and published throughout the course of this project, and the literature review has therefore been updated on several occasions. A review of the literature was conducted, to establish which topic areas previous research had focussed on, where and when the research had been conducted, and whether it was empirical or theoretical. Full details of the literature review can be found in section 2.3.1.

As discussed, the literature review revealed that the majority of existing literature emanates from Australia, with Australian and American academics having been researching and responding to TFDA for a longer period of time than those based in the UK. In the US, Dimond et al (2011) were amongst the first to publish on TFDA, highlighting women's experiences of being digitally stalked and harassed during their stay in a domestic violence shelter. Freed et al (2017 and 2018) followed with their research on American Family Justice Centres, evidencing that perpetrators of TFDA do not need to be technically skilled to perpetrate these forms of abuse, with the majority using low-skilled and easy-access methods to harm their partners.

In Australia, several theoretical and empirical papers have been published, with Australia remaining one of the leading sources of research on technology and domestic abuse. Of particular note is research by Woodlock et al (2020), which found that domestic abuse mediated by technology is likely to last for a longer period of time, and to permeate more areas of the victim's life, than non-digital abuse. This is partially due to the 'spaceless' nature of the abuse (Harris, 2018), with technology-facilitated harms facing less geographic and temporal constraints than in-person or contact offences (Henry et al, 2020). The fact that TFDA can be perpetrated remotely means that professionals can interpret TFDA as a 'less serious' form of abuse, as the risk of serious bodily harm and homicide appears lower than for in-person or contact offences (Harris and Woodlock, 2019). However, as Woodlock et al's (2020) work shows this is a false assumption.

In comparison to Australia and the United States, knowledge of TFDA in the UK remains relatively underdeveloped. Whilst evidence from Australia and the United States helps us to conceptualise TFDA, Australian, American, and UK cultures are non-identical, and therefore specific research is needed to fully understand the presentation and consequences of TFDA in the UK. University College London's Tech and Gender Research Lab group remain the only research team offering a consistent

and co-ordinated approach to researching TFDA within the UK (UCL, 2024), with other outputs largely originating from shorter, stand-alone projects (see Havard and Lefevre, 2020; Pina et al, 2021; Todd et al, 2021; Bailey et al, 2023 as examples).

Alongside the need for additional information on the types of TFDA women in the UK are subjected to, it was also identified during the literature review that information on the links between TFDA and women's (in)ability to engage with support services is incomplete. Being able to access specialist support services is crucial in cases of domestic abuse, as there are many points of significant risk to women, including incidents of non-fatal strangulation, the presence of coercive control, and separation (Glass et al, 2008; Matthews et al, 2017; Monckton Smith, 2020). Whilst it does not focus specifically on the challenges women face accessing services, Tanczer et al's (2021) paper does help us to understand the challenges faced by those providing support to women. Their paper sheds important light on the training, resource and support needs of those working in the domestic abuse sector, which complements the findings from this research. However, the authors also identify limitations to their work, relating to geography and the representativeness of their sample. These were both areas which this research sought to build on, as discussed below.

One of the limitations Tanczer et al (2021) identified for their study was a lack of participation from professionals in Northern Ireland. Understanding the situation in Northern Ireland is important due to the unique political situation, which has given rise to paramilitarism and widespread distrust in the police (Doyle and McWilliams, 2019). Within this study, two professional participants hailed from Northern Ireland, one domestic abuse support worker and one domestic abuse service manager. Whilst there were many similarities between the experiences between professionals in Northern Ireland and the rest of the UK, there were also some notable differences. However, it was decided, in agreement with these professionals, that now was not the right time to publicise this information, due to ongoing political instability and risks

from paramilitary groups within the region. It is hoped that this information can be shared at a later date.

Another limitation identified by Tanczer et al (2021) related to the technical confidence of their participants. Tanczer et al expressed concern that those who were least confident with TFDA may not have volunteered to be interviewed out of embarrassment. In this research, I was able to document the experiences of professionals who were both less-confident, and more-confident working with TFDA. It is not known why this was the case, but one possible factor may have been my partial 'insider' status. By recruiting professionals with differing levels of confidence, it was possible to draw an extended picture of professionals experiences and concerns, reflecting the diversity of those working in the field.

8.2. Objective 2: gather data on the types of technologyfacilitated domestic abuse women experience during and post their relationship

The second objective of this research was to gather data on women's experiences of TFDA within the UK. Presently, there is a lack of data on women's experiences of TFDA internationally (Douglas et al, 2019; Dragiewicz et al, 2019), with even less data available in the UK context (Lopez-Neira et al, 2019; Havard and Lefevre, 2020). To collect this data, a survey was conducted with 141 women with lived experience, investigating their experiences of TFDA during and post their relationships. The survey was based on an edited version of the technology-facilitated abuse in relationships (TAR) scale (Brown and Hegarty, 2021), which was pre-validated and provided the most extensive list of relevant behaviours (further discussion on survey design can be found in section 3.10.1.).

Through the findings, it was possible to group acts of abuse into three key areas: surveillance of women's daily lives, threats of harm, and reputational damage. A short summary of each grouping will be provided here, with full figures and commentary available in the relevant sections (section 4.1. for surveillance of women's daily lives, section 4.2. for threats of harm, and section 4.3. for reputational damage).

When it came to surveillance of their daily lives, women faced having their communications, finances, location, and time at home monitored, documented, and controlled by their current or ex-partner. Between 72% and 89% of women were subjected to some form of digital surveillance during their relationship, with 33% to 57% of women continuing to experience some form of digital monitoring and control post separation. Being under digital surveillance limited and/or prevented women from communicating with services, who can support women wishing to leave their relationship to do so safely. If women are not able to access expert risk assessment and risk management, they will be left at increased risk of serious harm, or in the most extreme cases, murder (Monckton Smith, 2020; Tseng et al, 2021).

With regards to threats of harm, women again experienced a broad spectrum of abuses, including threats of physical and emotional harm towards themselves, and threats of harm to their family, friends, and personal belongings. Perpetrators would threaten self-harm and suicide if women did not do as they were asked, and women would also receive threatening messages encouraging them to self-harm or take their own lives. Interestingly, this data most clearly demonstrated the 'change of project' which can occur post separation (Dobash and Dobash, 2015), when perpetrators move from attempting to sustain the relationship and the power they exert within this, to destroying women for challenging their control. This was evident through the reduction in perpetrator threats of self-harm and suicide post separation, offset by the increase in threats towards women, their family and friends, and their property, and the increase in messages inciting women to self-harm, or take their own lives.

The final grouping from the survey related to reputational harm. Reputational damage was found to be highly gendered, with perpetrators commonly targeting women's parenting and/or sexuality; two areas regulated by patriarchal standards and social conditioning (Nikupeteri et al, 2021). Image based sexual abuse (IBSA) was explored in detail, providing evidence of the use of this form of abuse to coerce women to remain in relationships. Various forms of IBSA were perpetrated both preand post- separation, and crucially, the reach of these forms of abuse has increased dramatically with the arrival of the networked society (Bailey et al, 2024). Online platforms have created opportunities for perpetrators to shame women locally, by sharing content with family, friends, and employers, or on a much larger scale, through social media and adult websites. Concerns have also been raised about the increasing accessibility of software and devices which allow perpetrators to falsify and fabricate content, including producing supposed 'evidence' of women's poor parenting, or deepfake images and videos. The criminal and family courts are not prepared to identify and respond to such content consistently and accurately (Breen, 2021; Delfino, 2023), leaving women at risk of unjust outcomes.

8.3. Objective 3: investigate how being subjected to technologyfacilitated domestic abuse shapes women's interactions with support services

The third objective of the research was to investigate how being subjected to technology-facilitated domestic abuse shapes women's interactions with support services. As well as understanding the scale and scope of TFDA, it is important that we understand how being under digital surveillance impacts on women's engagement with support services, so that we can maximise realistic opportunities for women to access help. Separation is a point of significant risk for women, and this process

should be risk assessed, and risk managed to safeguard women from further harm (Monckton Smith, 2020). Providing appropriate support can also prevent women from returning to their abusers, as their basic needs are met elsewhere (Women's Aid, 2024a). However, steps to protect women can only be taken if professionals are aware of victim-survivors and their situations, and therefore it is crucial that women can contact services, whatever their situation.

At present, there is limited information available on the ways being under digital surveillance shapes or disrupts women's interactions with support services (see Douglas et al, 2019 and Leitão, 2021 for two examples). As previously mentioned (see section 2.3.3.), Tanczer et al (2021) and Douglas et al (2023) have produced two of the only UK-based studies to examine professionals' experiences of working with TFDA, the findings from which align with the findings of this research.

This research has focussed on two moments within women's journey's to freedom where being under digital surveillance from their intimate partner is most likely to jeopardise their ability to access services or remain safe. These were establishing contact with services and regaining digital autonomy post separation. In both situations, the discovery of contact between women and support services could result in an escalation of the abuse, with seeking support, making plans to leave, and regaining digital privacy all representing challenges to the abuser's power and control (Matthews et al, 2017; Monckton Smith, 2020; Tseng et al, 2021; Stephenson et al, 2023). Solutions to support women and services to be in contact safely are needed, to ensure women can exit their relationships as safely as possible.

When women are under sustained digital surveillance from their intimate partner, opportunities to engage with services are dramatically reduced (Baddam, 2017; Woodlock et al, 2020; Leitão, 2021). Most services now ask for (at least initial) contact to be made via technology (Refuge, 2024a; Women's Aid, 2024b), but for women

under digital surveillance, this can prove incredibly difficult, or simply impossible. For women who are or suspect they may be being tracked, the option (where available) to visit services in person may also prove unfeasible, with their partners being able to monitor their movements and observe that they have visited the location of a domestic abuse service, or a police station (Bailey et al, 2024). For women under digital surveillance, opportunities to engage with services are more limited, and creative solutions which can be tailored to women's individual needs must be sought to ensure they can continue to access the support they need. As well as documenting the experiences of women who did manage to contact services, this research also draws on the voices of women who were not able to reach out to services, with missed opportunities providing insights into possible solutions to support those who are hardest to reach.

Whilst contacting services via technology could be challenging for women, many did manage to find some way of reaching out to services, provided there were a variety of options for doing so, so that women could use a method which matched their specific circumstances and needs. Telephone contact was particularly popular amongst the women participating in this research, owing to the flexibility it afforded them. Women could call services from any device, at any time, and from anywhere, to establish links and plan for ongoing contact. Women did not have to call from their own devices, meaning that they could identify and use devices which their partner had no access to, including public telephones, work telephones, or family and friends' mobile phones. Women also shared that calling services could help them feel less alone, as it connected them with the voice of a sympathetic supporter at a time when they were often feeling isolated and afraid.

However, telephone contact was not always possible, especially for women who were prevented from leaving the house, or women who were audio-recorded by their partners. Problems with telephone contact were heightened during the pandemic,

when women were regularly trapped at home with their abusers (Hohl and Johnson, 2021). Under these circumstances, silent options such as email, text, and webchat may be more accessible for women, provided they have secure access to a device. Where women did not have secure access to a device, written options may still be possible if women can leave the house independently, with email and live chat options being accessible via third-party devices such as a work or public computer. Email contact was similarly popular to telephone contact amongst women with lived experience, possibly because it allows women to build rapport with a specific support worker. Email contact could also be experienced as more flexible than telephone contact, and it allowed women to decide when and where they accessed communications, compared to the relative constraints of telephone contact, which needed calls to be answered at a specific time during business hours.

However, for women under the most significant levels of surveillance, written communications could remain out of reach. If women's partners controlled their access to technology, telephone contact could become the safest method of communication. This was because professionals were better able to disguise the content of this form of contact, either by withholding their number, using code words, and/or preparing credible alternative identities in case the perpetrator was present. Written communications are much harder to disguise and therefore could be too dangerous for women to receive.

In cases where it was simply too risky for women and domestic abuse services, or the police, to have direct contact with one another, it was sometimes possible for contact to be mediated via a third party whom women were allowed to have contact with. Many of the women who participated in this research were involved with multiple non-specialist services with their partners knowledge and permission, including healthcare and counselling services, addiction services, Citizen's Advice, job centres, their employers, or education providers. Although they rarely did, it was possible for

these non-specialist services to act as intermediaries between women and specialist providers, which would enable women to establish and maintain contact with domestic abuse services, the police, and social workers as required.

One area where these types of collaborations were more likely to occur was in general practice. Several of the professionals participating in this research discussed their work with women's GPs, who would facilitate contact and provide space for women to meet with the police and/or specialist domestic abuse workers at the surgery (see section 5.3.1. for further discussion on this). However, whilst this arrangement could work well, it often relied on specialist providers initiating the interaction. At present, healthcare professionals are not well trained on TFDA (Straw and Tanczer, 2023), and they are unlikely to ask about, or to recognise, TFDA of their own accord. Consequently, key opportunities to identify cases of TFDA, and to set up co-ordinated care for victim-survivors, were being missed. If healthcare professionals, including women's GPs, could be trained to recognise, enquire, support, and refer women to specialist services, healthcare providers could become a vital link between women and specialist providers, increasing the accessibility of support for women who are most difficult to reach.

Due to all of the challenges women face in establishing digital contact with services, it may appear that in-person contact would present a panacea. However, attending an office or drop-in centre could prove equally impossible for women under digital surveillance. In this study, 64% of women had had their location tracked by their partner on at least one occasion, with 33% stating that this happened 'daily or almost daily'. For these women, attending face to face appointments could result in an escalation in the abuse (Bailey et al, 2024), as their partner may become aware that they are seeking help, and/or planning to leave. Turning location settings off to disguise such contact may also serve to increase women's risk, as their partner's suspicion about their whereabouts grows (Monckton Smith, 2020; Tseng et al, 2021;

Stephenson et al, 2023; Childs et al, 2024). For women who want or need in-person support, third party options may once again prove to be the most accessible option, with specialist workers potentially being able to meet women at alterative locations. This is where services like SureStart Centres were previously supportive, with women potentially being able to meet professionals whilst accessing other family services. However, opportunities like this are becoming increasingly rare, with community resources being stripped to the bone under consecutive Conservative governments (Jupp, 2022).

Having acknowledged the potential barriers to in-person support, it is also important that services do not rule out in-person options in their entirety. Within this research, it was found that a reliance on digital support options risked excluding certain groups of women from services, including older women and women with learning disabilities. For these women, in-person options may be preferred, and it is therefore important that services offer a range of contact options to prevent indirect discrimination under the Equality Act, 2010. Further discussion on this can be found in section 5.4.

Once women have managed to establish contact with services, one of the next most important, but most dangerous, parts of their journey, is separation (Dobash and Dobash, 2015; Matthews et al, 2017; Monckton Smith, 2020). It is at this point that women will most likely need support to 'digitally-decouple' from their ex-partner, but how this looks will be different for each woman. Women are unlikely to seek digital independence before leaving their partner as doing so could alert their partner to the fact they are planning to leave, challenging their partner's control and potentially escalating the abuse (Matthews et al, 2017; Monckton Smith, 2020; Tseng et al, 2021). However, once women have left, regaining digital privacy and autonomy play a crucial part in improving women's physical and emotional safety. Services must be well informed on how to support women to digitally-decouple safely, including at what

point, and to what extent, they wish to do this. Getting this wrong could result in significant, negative outcomes, including women being tracked to new or secure locations, being further harmed, or even killed (Bailey et al, 2024).

Following the findings in both the professional and lived experience interviews, analysis on regaining digital autonomy was split into two parts: exploring the digital support needs of those staying in emergency refuge accommodation, and the support needs of those remaining in the community. For women entering emergency refuge accommodation, the need to 'digitally disappear' is urgent and all-encompassing. Women entering refuge accommodation are generally fleeing abuse which has a high chance of ending in significant harm or homicide, and to protect these women, the locations of emergency refuges are kept secret (Bowstead, 2015 and 2019). Whilst this was previously relatively straight forward, the advent of digital technologies has made it much easier for perpetrators to track women (Woodlock, 2017; Harris and Woodlock, 2019), reducing women's ability to 'hide'. As a result, services providers have had to go to increasingly extreme lengths to safeguard the women in their care.

Professionals participating in this research stated that many refuges are now operating a 'scorched earth' approach to technology, to prevent women from being followed to refuge. Women are routinely advised to switch all of their devices off for the duration of their stay, or to leave their devices at home when they flee. Whilst professionals recognised that this could have a detrimental impact on women, they also highlighted that there was often no other way to manage the risk, owing to the manner through which most women access refuge. The majority of women enter refuge accommodation as an emergency admission, with few moves being planned (Bowstead, 2015 and 2019). As such, there is rarely any time for women to secure their technology before they arrive at the refuge, and it is unlikely that they will meet refuge staff beforehand to receive support in securing their devices. By the time women reach refuge, all digital links between them and their abuser must have been

severed, to protect them, the staff, and the other residents from being discovered. Consequently, by the time women arrive at refuge it is too late for devices to be secured, leaving the only options to be turning the devices off, or leaving them behind.

Due to developments in location tracking software, there were some issues with the advice services were giving to women entering refuge surrounding their technology. Though turning devices off would appear to be a sufficient countermeasure to women being followed, updates to Apple's 'Find My' feature means that such measures have become partially obsolete for Apple product owners. Following the iOS 15 update, Apple's 'Find My' tool can now continue to work for up to 24 hours after the device has been switched off (Apple, 2024). As a result, if women bring an Apple product into refuge, this could cause their location to be compromised. Similar software is available on Android devices, including 'Find my Device'. Unless Apple and Android providers addresses this, it is likely that increasing numbers of women will be asked to leave their technology behind when entering refuge. As well as costing women financially, this also makes it more difficult for women to maintain ties with their support networks, who are crucial to their recovery from abuse (Wilcox, 2000).

When women are forced to leave their technology behind for security reasons, then replacements must be found. At present, domestic abuse services are attempting to raise funds to purchase new devices for their clients, or they are resorting to paying for them from their already limited budget. This is both unsustainable and a contributory factor to the financial crisis facing the sector (Pickering, 2024; Women's Aid, 2024). As previously mentioned (see section 2.3), access to technology is rapidly becoming a human rights issue (Suzor et al, 2018 as cited in Dragiewicz et al, 2019), and as such, there should be a co-ordinated, national scheme to ensure women fleeing domestic abuse have access to at least a mobile phone. This could be administered in the same way as the Connecting Scotland

scheme, set up during the pandemic to ensure everyone has access to the internet, and an internet-connected device (Scottish Government, 2024b).

If replacement devices cannot be provided, then a way for women to secure their technology on their way into refuge must be found, so that women can safely retain their devices. Even if replacement devices can be funded, this opportunity should still be explored, so that women can keep their own property, and the information stored on the devices. As previously reported (see sections 4.1.3. and 6.1), it is now common for women to be asked to have their cars checked for tracking devices at a garage on their way into refuge. If the infrastructure existed, it may be possible for women to get their devices checked and secured on their way into refuge as well, or for professionals involved in their case to hold and secure the technology before returning it to them. This would be a complex operation, requiring careful coordination and adequate funding, staffed by properly trained and DBS cleared employees and/or volunteers. An existing model which could be drawn on are the tech privacy clinics in the United States, which first appeared in Seattle and New York in 2018 (Freed et al, 2019; Cuomo and Dolci, 2022; Tseng et al, 2021 and 2022). These clinics train volunteers from the technology sector to support women to secure their devices and could be run similarly to legal advice drop-ins already in existence in the US, and the UK.

In contrast to those entering refuge, women remaining in the community will not necessarily need to 'disappear', as their partner is more likely to know their location, especially if they have chosen to stay in their home or the same local area. Instead, these women are likely to have more diverse support needs, and services must be able to adapt to each client. Because perpetrators are aware of women's location, significant care must be taken with supporting women to restore private access to their technology. How and when women secure their technology will be different in every situation, depending on women's situations and the behaviours of their ex-

partners. For example, some of the women who participated in this research had decided to block their ex-partner once they had left, to protect their emotional health. This is an option which may be possible for women where there are fewer concerns around physical violence post-separation. In contrast, other women had chosen to keep a channel of communication open with their ex-partner, so that they could assess their ex-partners frame of mind, keep tabs on his location, and/or reduce the likelihood of him turning up at their address. For women who were facing greater risk of physical violence, access to this information assisted them with risk assessing and safety planning, whilst also supporting them to feel more secure in their decisions (see section 6.2.2. for further discussion of this). However, whilst this route may feel safer for women, it is important to note that the burden of risk management and safety planning should not fall solely on victim-survivors, and appropriate steps should be taken by the police and probation services to manage perpetrators of abuse.

To give another example, some of the women participating in the research had been able to secure their technology post-separation by blocking their ex-partner, and/or changing the passwords to their accounts and devices. This option is more likely to be appropriate for women who own their own devices, meaning there are no legal complications around ownership of, and access to, the device. In contrast, some of the women felt the need to create new accounts, and others chose to replace their technology completely, to increase their feelings of safety. Sometimes this was because of the level of access or technical skill their ex-partners had, but for other women, replacing technology was also a requirement, as their ex-partner was the legal owner of the device, which made securing the technology more difficult.

Whichever steps women decide to take, it is crucial that they are supported to maintain contact with others. When women decide, or are encouraged, to change their phone number or other contact information, create new accounts, or remove themselves from digital spaces, their ability to engage with their support network and

professional services can be severely limited or impacted. Updating contact information with multiple different services can be burdensome and time consuming, especially when women are already under profound stress. If a professional is aware that a client is changing her contact details, they could support her to update these with other services (with her consent), to reduce the burden.

To summarise, women experiencing TFDA need access to services which are knowledgeable in both domestic abuse and digital technologies, with professionals who can guide them to make the most appropriate decisions for their specific circumstances and support them to execute these plans successfully. However, at present, women do not routinely have access to this level of support. Instead, women are being directed to cybersecurity charities like The Cyber Helpline, who, whilst knowledgeable and skilled, are not always able to provide support in the format women need (see sections 5.3.1. and 6.2.5. for Claire's story). Within this research, participants made it clear that they would like a choice of in-person or remote support when it came to securing their devices, with many indicating that they would prefer in person support from someone who could walk them through the process of securing their accounts and devices. This is not surprising, given the number of women who indicated they usually need support with technology (see section 5.1), and once again this points towards the need for something akin to the Tech Privacy Clinics available in the United States (Freed et al, 2019; Cuomo and Dolci, 2022; Tseng et al 2021 and 2022).

8.4. Objective 4: evaluate the knowledge base of professional groups who work with women subjected to technology-facilitated domestic abuse, including the extent to which professionals are able to make safe and informed decisions and recommendations

The fourth objective of the research was to evaluate the knowledge base of professionals working with women affected by TFDA. Alongside creating the infrastructure for women to safely contact services, is it also important that services can appropriately recognise and respond to TFDA. Within this research, it became clear that women often engage with several non-specialist services before coming into contact with specialist providers (see section 5.2 for further discussion). As such, it is important that non-specialist professionals are aware of TFDA and can safely link women in with specialist services, alongside specialist services being appropriately trained to respond to referrals. However, this research also found that both specialist and non-specialist providers did not always have a good understanding of TFDA, mirroring the findings of other projects (Straw and Tanczer, 2023; Bailey et al, 2024).

Women participating in this research had often engaged with a wide variety of non-specialist professionals, including healthcare professionals, counsellors, legal professionals, their employers, and educational establishments, before coming into contact with specialist providers. Amongst the women with lived experience who volunteered to be interviewed, there were several missed opportunities to identify the abuse they were experiencing, and to support them to access domestic abuse services, the police, or social services (see section 5.2 for more details). Missed opportunities meant that these women had remained in abusive relationships for longer periods of time, when they may have ended the relationship sooner had they been given the appropriate information, advice, and support. Instead, these women

were left to accumulate more trauma, often until more overt signs of abuse, such as physical and sexual abuse, became apparent within the relationship.

Upskilling front-line professionals who are likely to encounter victim-survivors of abuse could mean that cases of TFDA are identified earlier. This could result in women being supported to end their relationships sooner or at least provide the opportunity to monitor such relationships for risk of escalation (Monckton Smith, 2020). To ensure that all women are equally supported, it is important that approaches are consistent across services, local authorities, and countries in the UK. Women should not face a postcode lottery as to whether or not they will receive appropriate signposting and support. However, at present, accessing informed support very much remains a game of chance.

Within the survey conducted for this research, less than half of women 'agreed or strongly agreed' that services had a good level of knowledge when it came to TFDA. Just 47% of those who had engaged with the domestic abuse sector felt that they had had a good understanding of TFDA, falling to 38% for the police, and 30% for Independent Domestic Violence Advocates. These findings were reified by the interviews with victim-survivors and were of particular concern as each of these services engage with high-risk cases where femicide is a concern. If these services do not have a concreate understanding of TFDA, then questions must be raised over their ability to accurately risk assess and safety plan with victim-survivors of TFDA. Similarly, if these services do not have a good understanding of TFDA, then it can be presumed that non-specialist providers are even less well informed.

Returning to focus on specialist providers (including domestic abuse services, the police, and child protection services), this research identified three specific areas for professional development: knowledge of technology and TFDA, knowledge of coercive control, and knowledge of relevant legislation. By improving professionals'

awareness in these areas, women should see an improvement in the quality of the support they are offered. Each area will be summarised below, with the full explorations available in chapter 7.

Knowledge of technology and TFDA was a problem across all sectors discussed within the research. Several professionals from the domestic abuse sector shared that they, the police, and child protection services were struggling to keep up with the pace of change surrounding technology, expressing concerns that professionals were 'falling behind' perpetrators, who were always one step ahead. This sentiment echoes the work of Tanczer et al (2021), who found that the participants in their research felt similarly.

Participants from the domestic abuse sector felt that the age and gender profile of the workforce was a specific challenge for the sector, impacting on their ability to work with TFDA. The workforce primarily consists of women, many of whom grew up in a pre-digital society, and they therefore felt that they were not well equipped to work with technology and TFDA. This is reflected in the literature (Cockburn and Ormerod, 1993; Wajcman, 2006; Douglas et al, 2019), with women known to generally be less confident with technology then men.

Those working in the domestic abuse sector highlighted other challenges which they felt were specific to the police, including myth acceptance and a tendency to 'guess' when giving advice. In relation to myth acceptance, several of the domestic abuse professionals and victim-survivors provided examples of situations where police officers had subscribed to stereotypes surrounding domestic abuse. As well as being generally incorrect, many of these stereotypes were particularly unlikely to map on to victim-survivors of TFDA (see section 7.1.1. for the full exploration of this). It is now widely accepted that domestic abuse can be perpetrated by, and affect, people from all social backgrounds (Wilcox, 2000; Thiara et al, 2011; Donovan and Hester,

2015; Sundari et al, 2018), and therefore it is concerning that police officers are still referring to outdated myths and stereotypes when responding to domestic call outs.

Alongside adherence to domestic abuse myths, professionals in the domestic abuse sector were also concerned about the advice police officers were providing women, and their interactions with women more broadly. Poor understanding of domestic abuse and technology was resulting in police officers giving inadequate, and sometimes dangerous advice to women regarding their technology (for case examples, see sections 6.2.5. and 7.1.1.). In an attempt to build a case, police officers were also taking actions which placed women at further risk of harm. For example, police officers regularly asked for women's mobile phones in cases of TFDA, but delays in digital evidence processing meant that women would then be left without their phone for long periods of time. If women could not organise a replacement device, they could face prolonged barriers to communications with their family and friends, and professional agencies, including the police. Sometimes, the police were able to provide women with TecSOS phones, which connected them directly to the emergency services. However, as these devices were in limited supply, they were not always available and were often reserved for the highest-risk cases.

Professionals working in the domestic abuse sector also raised concerns about child protection and family court services, who were another service of interest within this research. Professionals reported that women they were supporting were regularly being pushed to maintain digital contact with their abuser as part of co-parenting or child contact arrangements, with social workers and the family courts seeing this as a seemingly 'safe' mode of contact because it was remote. In reality, digital contact was often providing perpetrators with the opportunity to continue the abuse, for example by sending abusive content to women's phones or email addresses. Such content was not always overtly abusive, which could make it difficult for women to explain the abuse to professionals.

Professionals working in the domestic abuse sector also raised concerns about digital contact between children and their fathers, which had become commonplace during the pandemic. Perpetrators were using video contact with their children as an opportunity to gather information about victim-survivors routines, surroundings, and locations, which placed women and children at risk of harm, especially if perpetrators were not allowed to know their ex-partners address, or to have in-person contact with their ex-partner or their children. This risk was not always being fully assessed or recognised, despite the potentially high cost of getting this wrong.

Overall, those working in the domestic abuse sector felt that child protection and family court services were not safeguarding women and children appropriately when it came to TFDA. Whilst the Children Act 1989 states that the child's welfare must be the priority for child protection services and the family courts, often resulting in a presumption of parental contact (Children Act 1989, section 1), the Domestic Abuse Act 2021 now recognises children as direct victims of domestic abuse, rather than as witnesses. As such, courts which do not consider TFDA may be failing children by subjecting them to further harm.

Professionals from the domestic abuse sector were keen to access more training on TFDA, so that they could support women more effectively. They also felt that specialist training would be beneficial in other sectors, including the police, child protection, and family court. However, service managers highlighted that this training would need to be accessible and cost effective, considering the roles and remits of professionals, their busy schedules, and their limited budgets. They also felt that training would need to be carefully pitched: equipping professionals with the knowledge to recognise TFDA, and to refer women on to the correct services where necessary, without expecting them to become experts in digital technologies themselves. It would be unreasonable to ask professionals in the domestic abuse sector, policing, child protection, or family court to become experts in technology, as

their roles are already diverse, requiring high levels of knowledge and information recall (Cuomo and Dolci, 2022). This is where additional resources would be necessary, to ensure women receive the level of support they need and deserve.

Alongside training professionals, it is recommended that organisations are supported to employ, or are provided with access to, specialist technical support. TFDA is a skilled area requiring specific expertise, as digital technologies are developing rapidly (Woodlock et al, 2020; Tanczer et al, 2021). Unable to cope, front line services are currently relying on their IT staff to provide to technical support in cases of TFDA. This is highly problematic, as these employees are unlikely to have a good understanding of domestic abuse, do not receive clinical support to help deal with the information they may hear or find, and are usually not DBS checked to ensure suitability to engage with sensitive information (Unlock, 2022). By embedding tech specialists within services or local authority areas, professionals would be able to offer an enhanced level of support to women, without needing to become digital experts themselves (Freed et al, 2019; Cuomo and Dolci, 2022; Tseng et al, 2021 and 2022; Brookfield et al., 2024). Having access to digital specialists who understand domestic abuse may also improve identification, documentation, and preservation of digital evidence in cases of TFDA (Cuomo and Dolci, 2022), supporting the police and child protection services to bring cases and support families effectively.

If it is financially unfeasible to embed tech specialists within each service, an alternative mechanism could be to establish tech privacy clinics in each local authority, like those available in the United States (Freed et al, 2019; Cuomo and Dolci, 2022; Tseng et al, 2021 and 2022). Tech privacy clinics house specialists in digital technologies who have been trained in domestic abuse, who are supported by professionals working within the domestic abuse sector. Those employed or volunteering within the clinics are DBS checked and supported to engage with vulnerable clients in a trauma-informed way. Women who attend the clinic are

supported to secure their own devices, so that they can feel more confident managing their own digital privacy going forward. A tech privacy clinic similar to those in the US was recently trialled in the UK, organised by the National Research Centre on Privacy, Harm Reduction and Adversarial Influence Online (REPHRAIN) (publications forthcoming), and another will be trialled next year by Yorkshire and Humberside Police (evaluations forthcoming). One of the main barriers to the provision of such services is access to long-term funding. Emma Pickering, Head of Technology-Facilitated Abuse and Economic Empowerment for Refuge and Churchill Fellow 2023, suggests this could potentially be addressed through the introduction of a 'techtax', in which a percentage of search engine and social media companies' income revenue is ring-fenced to fund specialist TFDA services, including tech clinics (Pickering, 2024). To make such clinics more financially viable, staff could also support those who have experienced other technology-facilitated harms to regain control over their content or devices, for example those who have experienced image based sexual abuse or online scams.

Though this research has documented evidence of poor practice and understanding when it comes to technology and TFDA, there were also examples of good practice which could be disseminated across services. For example, if women were still in a relationship with their partner but were thinking about or making plans to leave, professionals within the domestic abuse sector would employ a range of strategies which enabled them to continue to support women, despite the abuse. These steps included calling women from withheld numbers, so that their partners could not search for the number or return the call, agreeing code words with women, which they could use to indicate that they were in danger or that it was unsafe to talk, and adopting credible secondary identities, such as a health visitor or cleaner, in case the perpetrator answered the phone. Whilst these techniques cannot act as a panacea to all risk, they enable women to engage with services in a way which

manages the potential risks posed. It would be worthwhile sharing these techniques with professionals working in other organisations, so that women can engage with a range of services in a risk managed way.

Alongside improving professionals' knowledge on technology and TFDA, those working in the domestic abuse sector also raised concerns about police officers and social workers understanding of coercive control, which so often underpins TFDA (Dragiewicz et al, 2018; Harris and Woodlock, 2019; Woodlock et al, 2020). One of the key issues within policing is the incident-based approach to investigating and prosecuting crimes (Wiener, 2017; Stark and Hester, 2019; Barlow and Walklate, 2022; Myhill et al, 2022), which has made it difficult for officers to engage with crimes which amount to a course of conduct, like coercive control. Without a full appreciation for the way gendered power and control underpins these acts (Stark, 2007), it can be difficult for officers to identify how seemingly innocuous behaviours are actually symptomatic of a broader pattern of coercion and control, leading to cases of coercive control getting missed.

If police officers cannot recognise coercive control, then they will not be able to prosecute cases under the relevant legislation, namely the Serious Crime Act 2015 in England and Wales, the Domestic Abuse (Scotland) Act 2018, and the Domestic Abuse and Civil Proceedings Act (Northern Ireland) 2021. This could mean that women are left unprotected until acts which the police do recognise, such as an assault, occur, leaving women to accumulate more and more trauma. This is of further concern as coercive control is known to be a precursor and high-risk indicator for domestic homicide (Monckton Smith, 2020). If more convictions occurred for coercive and controlling behaviours, then fewer women might die at the hands of their partners each year.

To make matters worse, when police officers are unable to correctly identify coercive control, they may end up criminalising victims, who can react (sometimes violently) to prolonged trauma and abuse (Barlow et al, 2020, Barlow and Walklate, 2022). Not only is being arrested traumatic, but it also damages trust in the police when the person being arrested is the victim rather than the offender (Dichter, 2013). This is particularly pertinent at this present moment, in the context of widespread mistrust in the police following a series of crimes against women by serving police officers (Independent Office for Police Conduct, 2023). In order to address domestic abuse, women need to feel able to contact the police, and by arresting victims, police forces are damaging their trust.

As well as raising concerns about police officers' capacity to respond appropriately in cases of coercive control, professionals working in the domestic abuse sector also felt that child protection services and the family courts had a poor grasp of this issue generally. They stated that when social workers and family court professionals were unable to identify the primary aggressor and the primary victim correctly, domestic abuse perpetrators could be successful in their efforts to influence or manipulate child custody or child safeguarding decisions. Even where perpetrators were not successful in their attempts, women could still be left with the consequences of professional doubt over their capability and suitability as a parent, if malicious accusations could not be fully disproved. This links to earlier discussions on the impacts of acquiring a 'stained identity' as a result of TFDA, which often had long term consequences for women and their families (see sections 2.3.1, 2.3.3. and 4.3.8. for the full exploration of this).

Ultimately, further training is needed for social workers and police officers when it comes to coercive control. This would support earlier, more proactive, and more accurate identification of victim-survivors and perpetrators, which could facilitate

better outcomes for women and children. At present, professionals in both job roles receive limited training on coercive control, with police officers receiving 'on-off training', rather than continuous professional development through the College of Policing (Tatton, 2024). A recent Freedom of Information request highlighted the limited training received by social workers, with the Domestic Abuse Commissioner for England and Wales asking Social Work England to introduce mandatory levels of training on coercive control (Collinson and Kendall, 2024; Safelives, 2024). Academics from the Joint Universities Social Work Association (JUSWA) felt that this training should take place post-qualification, during the Assessed and Supported Year in Employment (ASYE) (Samuel, 2024).

Whilst specialist training is an important part of improving professionals' responses to TFDA, those working in the domestic abuse sector also identified that common resources needed updating to reflect modern society. The 'Domestic Abuse, Stalking and harassment and Honour-based violence' (DASH) risk assessment was singled out by professionals, who highlighted that the form had been designed when digital technologies were far less advanced. In its current format, the DASH risk assessment does not support accurate risk assessment in cases of coercive control and TFDA, due to the yes/no format of the questions, and lack of reference to digital technologies (Wire and Myhill, 2018; College of Policing, 2022 Tanczer et al, 2021; Todd et al, 2021; Brookfield et al, 2024). The supplementary stalking resource also makes no mention digital technologies, despite the fact the majority of stalking cases now involve at least one online element (Woodlock, 2017; Messing et al, 2020). Failure to include TFDA within the DASH risk assessment or the stalking supplementary questions means that the expectation is currently placed on victimsurvivors to spontaneously disclose, or for professionals' to have the knowledge and confidence to ask about TFDA despite limited training. From the literature and this research, we know that women are unlikely to spontaneously disclose TFDA

(Messing et al, 2020), and that professionals regularly lack confidence working with TFDA (Tanczer et al, 2021), meaning that it is highly likely cases of TFDA are being missed.

To address this issue, professionals from the domestic abuse sector recommended that the DASH risk assessment be updated, or that an additional resource, similar to the stalking supplementary questions, be made available. As well as reminding professionals to ask woman about their technology, those working in the domestic abuse sector felt the inclusion of TFDA in the DASH risk assessment may encourage other professionals and organisations to take it more seriously. When asked what the updated DASH risk assessment should look like, those in the domestic abuse sector suggested questions on the types of technologies women possess, who has access to the devices, and the types of abuse women have experienced. Participants also suggested that women should be asked about their partner's profession, hobbies, and perceived level of technical skill, as it had been observed by both professionals and victim-survivors that some perpetrators were afforded easier access to their partners devices and could use them as part of the abuse more successfully because of their employment or personal interests. This mirrors findings from tech clinics in the US (Freed et al, 2019) and would be similar to the question regarding access to firearms or dangerous chemicals which is currently included in the DASH risk assessment (Richards, 2009).

Although most of the professionals participating in this research supported updates to the DASH, a few stated that they did not want the DASH to be updated, as they felt the form was already quite long and complex to complete. Instead, they felt that a supplementary resource, similar to the supplementary stalking questions, may be more appropriate and time efficient. Whilst this could be an option, there is the potential that a supplementary resource could be forgotten or not completed, and

this would need to be considered carefully before any decisions were made, to ensure that TFDA does not fall through the gaps once again.

Whether the DASH risk assessment was updated, or a supplementary resource was created, professionals from the domestic abuse sector noted that keeping any resource up to date would prove challenging. Technology is developing rapidly, and resources could therefore become outdated or unfit for purpose relatively quickly. An updated DASH risk assessment and/or supplementary resource would need to be carefully worded so that it was future proofed against foreseeable developments in technology. This may mean that these resources would focus more on the impacts of various behaviours rather than the specific technologies being used, with the specific technologies instead being identified and addressed by embedded tech specialists or tech clinic workers, as discussed earlier (see section 6.2.3.).

Alternatively, the newly developed Domestic Abuse Risk Assessment (DARA), recently trialled for use by front line response officers in three police force areas (College of Policing, 2022), could be phased in as a replacement for the DASH risk assessment, where appropriate. Compared with the DASH risk assessment, the DARA asks about a much broader range of behaviours which are more applicable to TFDA, including questions around digital surveillance, damage to property, and harassment through technology. The DARA also moves away from the yes/no format of the DASH, to ask whether particular behaviours happened 'never', 'occasionally, 'often', or 'all the time'. This improves the likelihood of coercive and controlling behaviours being identified. Participants in this research were not asked their opinions on the DARA, as it was still newly developed at the point of data collection. However, further research and consideration should be given to whether this resource may be appropriate for use by other professionals, and if so, whom.

Improving women's access to support plays a crucial role in creating equity of service for victim-survivors of TFDA. Where these services do not exist, women are left to rely on informal networks for information about securing their technology and regaining digital autonomy. This leads to a tiered outcome, where those with more social capital can secure their technologies, improving their safety and ability to engage in life, whilst those facing marginalisation and disadvantage are left socially isolated and at greater risk (see section 6.2.6. for case examples). As well as improving their safety, receiving support to secure their devices also decreases the likelihood that women will need to replace items, relieving a financial burden on women who may already be struggling to survive, and increases their ability to engage with formal and informal support, reducing the likelihood that women will return to abusive situations.

8.5. Objective 5: draw on feminist theories of domestic abuse and science and technology studies to inform the research and the recommendations made.

The final objective of this research was to draw on feminist theories of domestic abuse and science and technology studies to inform the research and the recommendations made. Despite having been identified over a decade ago (Dimond et al, 2011), TFDA remains one of the lesser known and least understood areas of domestic abuse. Consequently, alongside developing practice, more comprehensive steps must be taken to raise the profile of TFDA, to prevent future generations from being subjected to similar harms.

A feminist framework was used to inform and shape all aspects of this research, from design, through to data collection, analysis, and interpretation of the findings.

Domestic abuse and coercive control have been interpreted as gendered concepts, centred around men's perceived right to excise power and control over their female intimate partners (Stark, 2007 and 2009). Technology creation and use have also been understood as gendered issues, with interest in and use of digital technologies historically and often presently being coded as a masculine pursuit (Barter and Koulu, 2021). Research has continuously shown that women are more likely to lack confidence when it comes to technology, and therefore TFDA is a doubly gendered phenomenon, disadvantaging women on multiple fronts (Dragiewicz et al, 2018; Henry et al, 2020).

Despite the commonality of domestic abuse (Sardinha et al, 2022), there is still not widespread knowledge of domestic abuse, or TFDA, amongst the general population (Lagdon et al, 2023; Pickering, 2024). Victim-survivors participating in this research shared that they had not recognised what was happening to them as domestic abuse, as they still interpreted domestic abuse as primarily physical (see section 5.1 for case examples). TFDA can be especially hard for women to spot, as physical abuse may not be present until much later on, if at all. Boundaries around what is 'healthy', 'unhealthy', and abusive are also particularly unclear when it comes to digital technologies, making it more difficult for women to identify abuse, or to speak up when they have concerns (Maher et al, 2017; Harris, 2018; Lever and Eckstein, 2020; Messing et al, 2020). By educating women on what abuse looks like, and how it can be carried out though technology, we can empower them to identify concerning behaviours, listen to their instincts, and have the confidence to ask for help (Duerksen and Woodin, 2019; Pickering, 2024), reducing the harm caused to them. As such, public education must form a key pillar of any efforts to tackle TFDA in the UK.

For adults, public information and campaigns can be a successful means of raising awareness of specific issues. For example, Luke and Ryan Hart, whose mother Claire and sister Charlotte were murdered by their father, said that they may

have recognised what was happening in their family as coercive control, had they seen posters on the topic prior to being sat in the police station following the murders (Hart and Hart, 2018). The media can also be a powerful means of educating the public on sensitive issues, with depictions of violence and abuse in soap operas and dramas having been credited with increasing the number of calls to specialist hotlines (BBC, 2017; Suzy Lamplugh Trust, 2024). For children, Personal, Social, Health, and Economic (PSHE) lessons and creative education tools such as participatory theatre could meaningfully be used to raise awareness of TFDA, with similar methods having been successfully used for other issues, including forced marriage (Alijah and Chantler, 2015).

Alongside raising awareness of TFDA, there must also be a concerted effort to improve digital literacy and technical confidence amongst women. In the survey conducted as part of this research, almost one quarter (24%) of women stated that they did not feel confident using new technologies, with slightly more than a quarter (28%) indicating that they usually asked for support when using new technologies for the first time. This finding reflects the wider literature on gender and technology, which states that women are generally less confident when using technology (Cockburn and Ormerod, 1993; Wajcman, 2006; Douglas et al, 2019). When women lack confidence around technology, it leaves them more vulnerable to TFDA, as they may be reliant on the person abusing them for technical support, and they are less likely to be aware of potential weak spots which perpetrators could exploit. This in turn provides perpetrators with greater opportunities to access women's accounts, compromise their devices, and/or surveil women in and outside of the home, with or without their knowledge and consent.

It will not be easy to improve the digital literacy and technical confidence of adult women, but future generations of women can be meaningfully safeguarded through the provision high quality education in Science, Technology, Engineering, and Maths

(STEM) subjects, backed up by positive cultural messages about women and technology (Lang et al, 2020). This should result in generations of women who feel more confident in their ability to engage with technology independently, and who have a greater understanding of the capabilities of technology, and where they can ask for help.

However, care must be taken that the burden of responsibility is not placed solely on women to protect themselves from TFDA. Whilst knowledge is power, knowledge does not stop abuse. Women have long been forced to perform 'safety work' in an attempt prevent physical and sexual assaults (Vera-Gray, 2016). Now, they are increasingly being made to perform 'safety work' in online and digital spaces as well, shrinking themselves both physically and metaphorically in an attempt to avoid harm (Maher et al, 2017). By removing themselves from digital and online spaces, or engaging with them in a limited way, women become isolated from their support networks and are unable to engage in day-to-day life as they otherwise would (Harris, 2018; Douglas et al, 2019). In this sense, TFDA can be construed as a 'liberty crime', a term conceptualised by Evan Stark (2007) to describe the ways coercive and controlling behaviours diminish women's free and equal citizenship.

As such, steps must also be taken by the tech sector, statutory and non-statutory bodies, and the government, to prevent perpetrators from using technology as tools of abuse. As well as detection and enforcement of relevant legislation, efforts should also be made to design technology in a way which protects women from the start. At present, the tech industry has made almost *no* effort to prevent women from being subjected to technology-facilitated domestic abuse. This is in stark contrast to their efforts to prevent property theft, which is treated with the utmost seriousness. It does not have to be this way, with Feminist Science and Technology scholars asserting that we can re-imagine and re-orient technologies so that they protect women from harm and support victim-survivors when they have been, or are being, abused

(Haraway, 1988; Wajcman, 2006). Technology can also be designed so that it is more difficult for perpetrators to co-opt software or devices for nefarious ends, cutting off opportunities to abuse women at the source.

By adopting the concept of 'safety by design' (PenzeyMoog and Slakoff, 2021), designers could create technology which has built-in mechanisms to prevent abuse, before products are released onto the market. A recent example where this failed was the release of Apple AirTags, which those in the VAWG sector immediately recognised as potential stalking devices. AirTags were intended to allow those who owned an Apple device to track lost belongings using Bluetooth connection and the 'Find My' function, however abusive men began using the devices to track women almost immediately (Mac and Hill, 2021). Apple did put an alert in place so that women would know if an AirTag was travelling with them, but this only worked if the person being tracked had an iPhone themselves. Eventually, Apple were pressured into reducing the alert time and creating an app for Android users, to alert them to the presence of an AirTag. However, this app had to be downloaded, which many women would not have known they needed to do (Turk et al, 2023). Despite having only been on the market for 3 years, Apple are already the subject of several lawsuits relating to domestic stalking, and the murders of women in Ohio, Akron, and Indianapolis, all involving the use of Apple's AirTags (Clayton, 2022).

By considering how apps and devices might be used to facilitate abuse before they are released onto the market, fewer women would be subjected to abuse in the first place. The tech industry should also be forced to ensure working block and report functions are available on all apps and devices, and companies should produce guides to securing their apps or devices if they become compromised. It would be relatively easy for large corporations such as Google and Apple to produce these resources, and to ensure that they remain up-to-date. With built-in safeguards to identify problems and connect women with support, women may be able to remain

online with greater safety, rather than being forced to withdraw (Douglas et al, 2019; Woodlock et al, 2020; Nikupeteri et al, 2021). The responsibility for this sits with both the tech sector and the government, who must work together to improve platform governance (Dragiewicz et al, 2018). Platform designers should ensure that platforms' front and back-end systems protect women from harmful content, and that women have access to report and block functions which are swift and efficient. To encourage compliance, the government must also create robust regulations, to foster a culture where the tech industry is held accountable for their creations.

One of the ways that the tech sector could improve the safety of their apps and devices, before they are released onto the market, is through engaging in design runthroughs with professionals from the domestic abuse sector and research centres like the Tech and Gender Research Lab group. These groups are likely to identify potential issues during the design phase, reducing the likelihood of products being released onto the market with predictable areas of risk (PenzeyMoog and Slakoff, 2021). Academic researchers may also be able to make suggestions for features which could protect women from harm and increase their access to technology (Turk et al, 2023; Childs et al, 2024), such as training technology to recognise patters of use to identify if someone else is using the device (Freed et al, 2018).

However, whilst these changes are both urgent and highly necessary, it must also be acknowledged that holding the tech industry to account, and persuading them to change, will be challenging. Silicon Valley has long been known for its 'move fast and break things' mantra (Vardi, 2018), and as previously mentioned, the "commodification and marketisation of abuse" means there is now a financial interest in failing to address online VAWG (Harkin et al, 2020 as cited in Yardley, 2020, pp.1482). The tech industry is known for wilfully designing and implementing technologies which support the abuse of women (BBC, 2024), and as such, the

government must find ways to incentivise, or force, the tech sector to be more socially responsible.

One of the ways they have already attempted to do this is through the creation of the Online Safety Act 2023, which serves to regulate digital services by imposing requirements and duties in collaboration with Ofcom. On the 25th February 2025, Ofcom published its draft guidance setting out practical steps tech companies can take to prevent violence against women and girls, including technology-facilitated domestic abuse. Promoting a 'safety by design' approach, these steps include conducting 'abusability' tests (testing to see how an app or device might be exploited by an abuser), improving account and device security, removing geolocation as a default setting, and improving reporting mechanisms and responses (Ofcom, 2025). The consultation window for this guidance does not close until the 23rd May 2025, and so it is not clear at this time what the final guidance will be. However, is likely that there will be calls to align more closely with the Code of Practice on Violence Against Women and Girls (End Violence Against Women, 2023; Domestic Abuse Commissioner for England and Wales, 2024), developed by a coalition of experts in online VAWG.

Alongside the development of this guidance, the UK government should look to implement a 'tech tax', ring-fencing revenue money from online search engines and social media companies to fund specialist domestic abuse services (Pickering, 2024). The tech sector should also be encouraged to make better use of corporate social responsibility budgets (Snook, 2017), to fund work which improves the digital safety of women and girls. Whilst recognising that they are chronically underfunded, the domestic abuse sector could also play a more significant role in holding the tech industry to account, by inciting greater pressure to protect women, and causing reputational harm to those who continue to neglect their responsibilities.

Although there are multiple and significant problems surrounding technology and domestic abuse, it is also important to note that these technologies are not solely detrimental. Digital technologies have increased women's access to information about domestic abuse and the agencies that can support them (Baddam, 2017; Maher et al, 2017). Online services have made it possible for women to seek help without having to reveal their identity (Maher et al, 2017; Douglas et al, 2019), which can enable women to come forward if they fear they won't be believed, or if they work in organisations affiliated to ones they are seeking help from. Moreover, digital technologies have provided victim-survivors with the means to record their abuse, which they can then use to reassure themselves that their experiences are real, or to support criminal or civil investigations (Leitão, 2021). Once women have left the relationship, digital technologies can also help provide some sense of security for women, for example by giving them the ability to alert family and friends, or the police, to their location should they feel threatened or unsafe (Baddam, 2017).

As discussed in an upcoming paper (Brookfield et al, 2025), apps and devices which have both legitimate and nefarious purposes, conceptualised as 'dual use' by Chatterjee et al (2018), should not be rejected, but must be used with care. Smart doorbells and location tracking apps and devices are two examples of technologies which can be dangerous in the hands of perpetrators, but which can also bring comfort and security to women post separation, if used correctly (discussed in more detail in section 6.2.1). This is another example of a scenario where women will need access to specialist information and advice, so that they can make use of these apps and devices in a safe and supportive way, whilst minimising the risks of ongoing harm. Those designing such technologies could also go further to engage with the principals of 'safety by design' (PenzeyMoog and Slakoff, 2021), to enable women to use their technologies in these ways.

To fully and comprehensively address TFDA, any actions taken must also consider the wider social positioning of women and girls. TFDA is a manifestation of gender inequality and male violence against women and girls (Powell and Henry, 2019; Yardley, 2020; Tanczer et al, 2021), and women are prevented from escaping abuse by the political and policy landscape (Andersen, 2023). As previously mentioned (see chapters 2 and 4), women are still being trapped in abusive relationships through financial and economic abuse (Sharp-Jeffs, 2015 and 2022), and policies which prevent women from working, such as the two-child benefit cap and rising cost of childcare (Andersen, 2023). If we want women to be able to escape TFDA, then the government must work holistically to improve the socio-political-legal standing of women in the UK.

To protect and support women subjected to TFDA, steps must also be taken to formally recognise this form of abuse within policy and legislation. At present, there are no policies or legislation which specifically target TFDA, and key players remain somewhat lacking; the Domestic Abuse Act 2021 includes very little reference to technology-facilitated harms, and the Online Safety Act 2023 makes limited reference to domestic abuse. One of the only official documents which mentions TFDA is the National Police Chiefs' Council's Strategic Threat and Risk Assessment on Violence Against Women and Girls (2023), which this research contributed to. Elevating Violence Against Women and Girls to sit alongside organised crime and counter terrorism, the Strategic Threat and Risk Assessment recognises domestic abuse and tech enabled VAWG as two key areas of concern. Beyond this document, TFDA is largely invisible, essentially having 'fallen through the cracks' between domestic abuse prevention and the regulation of technology.

Failure to recognise TFDA in policy and legislation creates a barrier to addressing this form of abuse, as funding is less readily available for issues which do not 'officially' exist. This prevents services from attracting the funding needed to put

programmes of support in place for women subjected to TFDA (Women's Aid, 2024a), stalling innovation and progress. Poor recognition also limits the steps taken to identify, manage and challenge those perpetrating the abuse, again due to limited funding and oversight. In line with feminist ethics, it is important that women and the women's sector are not left to manage or address the consequences of TFDA on their own, without any effort to prevent and respond to abusers. Formal recognition of TFDA would place a requirement on statutory agencies to address TFDA, removing responsibility from women to protect themselves, and placing it firmly with those who should be supporting them.

Since this project was first imagined in 2018, the landscape surrounding TFDA has changed considerably. At that time, there were very few publications on TFDA globally (see Dimond et al, 2011; Freed et al, 2017; Woodlock, 2017 for examples), and Refuge had only just established its 'Tech Abuse Team', which later became the 'Technology-Facilitated Abuse and Economic Empowerment Team' (Refuge, 2024b). The Domestic Abuse Act (2021) was still three years away, and the Online Safety Act (2023) even further. It is encouraging to see such growing interest in this issue, with more research now in existence, especially from Australia, who are leading the way in conceptualising and documenting TFDA (see section 2.3.1. for full details). The UK is also beginning to acknowledge this form of abuse, with the National Police Chiefs' Council identifying online VAWG as a priority (2023), and the Tech and Gender Research Lab group continuously drawing much needed attention to the dangers of smart home technologies (Tanczer et al, 2018 and 2019). However, whilst we have more information than ever before, TFDA is a dynamic and ever-changing phenomenon owing to continuous innovations in digital technology, and therefore there is no time to rest, or to assume that this issue has been fully understood.

This thesis concludes with recommendations for victim-survivors of TFDA, the domestic abuse sector, other agencies like the police and social services, the tech

sector, and the government. These are evidence-based recommendations drawn from four years of research and analysis, and it is hoped that these recommendations will be taken on board by those who have the power to drive change, going some way to support the current Labour government's pledge to half violence against women and girls in the next ten years (Home Office, 2025). TFDA does not need to escape us, but action must be taken to put life-saving measures in place now, before the complexity of the issue increases further. Women are asking for help, and they must have access to services who can support and empower them to regain control over their lives. Because, when all is said and done, all women have the right to live their life free from abuse.

Recommendations for victim-survivors of technology-facilitated domestic abuse

- Consider which technologies you and your children own. Is it possible
 that the perpetrator has access to these devices? You could use Cornell
 University's checklists (https://ceta.tech.cornell.edu/resources) or Refuge's
 Home Tech Tool (https://refugetechsafety.org/) to help you identify each of
 the devices that you own.
- If you are unable to access services via your own devices, are there any
 opportunities for you to connect with services from another device? (e.g.
 a friends or colleagues' phone, or a public computer in the library).
- Is there an alternative service who could help you connect with domestic abuse services? (e.g. a healthcare provider or counsellor). You may also be able to access the J9 initiative (www.earlyhelpnottingham.org.uk/support-for-families/relationships/support-with-domestic-abuse). Be clear what kinds of contact you can/cannot receive from people.
- Seek support from specialist providers like Refuge's Technology-Facilitated Abuse and Economic Empowerment Team, or the Cyber Helpline, if technical advice is needed.
- If you are moving into refuge or other safe accommodation, be aware that your technology may be tracked. If you own an Apple device, 'Find My' functions may continue to work after the device has been switched off, depending on your operating system and settings. If you are unsure how to secure your device, consider leaving the device with someone safe, or leaving the device behind. It may be possible to recover the device later.
- If you are separating from your partner, moving into refuge or other safe accommodation, consider having your car checked for tracking devices at a garage. If you are moving into refuge or other secret accommodation, you should remove tracking devices before setting off to your new accommodation. If you are remaining with your partner or they know where you are living, seek specialist support from domestic abuse services before removing any tracking devices. If possible, disable any devices that are found and keep them, or store them in a secure location. The police may be able to prove ownership of the device using the serial number.
- If you have children, check their clothes, bags, and toys for tracking devices.
 Treat these devices the same way you would if the device was found on your car.
- If you plan to use technology for personal safety or gathering evidence post separation (for example video doorbells), consider whether your (ex)-partner may have had access to these devices. Do not use devices which could have been compromised.







Recommendations for the domestic abuse sector on technology-facilitated domestic abuse

- It is very difficult for women under high levels of digital surveillance to engage with services. To improve access for these women, relationships should be built with local services where women may disclose, including healthcare centres and counselling providers. This will improve co-ordination between services and ensure that referrals can be made.
- Always consider the possibility of tracking and surveillance with clients.
 Women may not be aware that they are being tracked, so questions should be asked about whether women's (ex)-partners could have had access to their or their children's devices, or whether anything has happened which has raised concerns for women (for example their partner knowing information which they weren't privy to).
- Ensure all staff are aware of, and seek to engage with, specialist services such as the Cyber Helpline, and Refuge's Technology-Facilitated Abuse and Economic Empowerment Team, when technical advice is needed.
- When women are entering refuge or other safe accommodation, advise they have their vehicles checked for tracking devices. Women should also check their own and their children's clothes and belongings for devices. If devices are found, these can be disabled if women are on their way to refuge. Once devices are disabled, these should be kept or stored in a secure location where possible, as the police may be able to use them as evidence of abuse.
- With regards to mobile phones, laptops, and other digital devices, be aware
 that tracking may be an issue. Some Apple products can still be tracked via
 'Find My' after they have been switched off. If women cannot confidently
 secure their devices prior to entering refuge, discuss whether they can leave
 them somewhere safe. If not, women may need to leave their devices behind.
- If you are recommending technologies to women post-separation, either to improve their safety or support evidence gathering (such as a smart doorbell), consider whether these devices are secure, and whether the perpetrator has previously, or could subsequently gain, access to them. Devices which could have been compromised should not be used.
- If women are having to change their contact details (telephone number, email address etc.) due to the abuse, offer to support them to update their details with other services.
- All staff need mandatory training on TFDA. Engaging with training on TFDA should be a priority.
- All providers should seek to include information on TFDA on their websites, and in public facing materials, to help raise awareness of TFDA amongst women and other services.
- Large organisations such as Women's Aid, Refuge, and/or SafeLives should look to extend the DASH risk assessment to include technology, or to adopt the DARA.







Recommendations for other services (including the police and social services) on technology-facilitated domestic abuse

- The College of Policing and local authorities should review training requirements for police officers and social workers regarding domestic abuse and coercive control, to ensure these are up to date and reflect the presence of digital technologies.
- For qualified and operational staff, training on TFDA must be a priority.
 Inadequate understanding of TFDA places women at significant risk of harm.
- All public facing police officers and social workers should be aware of specialist teams such as the Cyber Helpline and Refuge's Technology-Facilitated Abuse and Economic Empowerment Team, and they should know how to signpost women to these services.
- The College of Policing and National Police Chiefs' Council should look to roll out the Domestic Abuse Risk Assessment (DARA) for all front line response officers. The police and social services should liaise with domestic abuse services in the event that an updated DASH risk assessment is made available or the DARA is rolled out, to ensure consistency across services.
- Police forces' domestic abuse teams should seek to build closer relationships with local providers where women are likely to disclose abuse, such as healthcare centres and counselling providers. This would support referrals and could facilitate communication between women subjected to TFDA and the police.
- Knowledge exchange exercises between police forces and domestic abuse services should be re-introduced. This would support sharing of best practice, such as the ways domestic abuse workers initiate and maintain safe contact with victim-survivors.
- Police forces' communications teams should produce public campaign materials specific to TFDA, to help raise awareness of TFDA amongst the general population.
- Social workers and family court professionals should consider the
 potential harms to women when remote or digital contact is being
 recommended or enforced. Digital or remote does not automatically
 mean safer, and women should not be forced into direct contact with
 their abuser if this permits further abuse to occur.
- Social workers and family court professionals should be mindful of the Domestic Abuse Act 2021 when making contact arrangements, as children are now legally considered direct victims of domestic abuse by their parent, rather than witnesses.







Recommendations for the tech sector on technology-facilitated domestic abuse

- Consider potential opportunities for perpetrators of abuse to use technologies to cause harm to their intimate partner, even if this is not the intended use.
 Consulting with specialists in violence against women during design run-throughs could help to identify and eliminate weak points in new technologies.
- Engage with the concept of 'safety by design' as a
 preventative measure, both for existing and new
 platforms and devices. This should include making
 it more difficult for perpetrators to use platforms and
 devices to cause harm, ensuring users are aware of
 any potential privacy or security risks, and ensuring
 reporting options are transparent and easy to use.
- Produce comprehensive but accessible information and security guides for all apps and devices, and make sure that these are kept up to date.
- Train moderators to recognise coercive control and domestic abuse, and improve capacity to respond to reports and complaints in a timely manner.
- Treat domestic abuse with the same level of seriousness as property theft.







Recommendations for the government on technology-facilitated domestic abuse

- Work should be undertaken to improve awareness and understanding of coercive control and TFDA amongst the police, criminal, civil and family courts, social services, healthcare services, and education providers.
- The Department of Education should engage with schools to raise awareness of coercive control and TFDA, to ensure children receive messages about healthy relationships early, and know where to seek support if they have concerns. Efforts should also be made to improve girls confidence in STEM subjects, particularly technology.
- Domestic abuse services, the police, and social services require access to technical support so that they can appropriately support women subjected to TFDA. This will necessitate funding being made available for each service to employ their own technical specialist, or a shared service being made available. Tech clinics, similar to those currently in operation in the US, should be considered. This would allow technical support to be shared across services, and clinics could also be made multi-issue (e.g. not just for TFDA, but also for offences such as stalking and technology-facilitated child abuse). Proper technical support would improve the lives of victims and contribute towards a reduction in serious harm and homicide, helping to meet the government's own targets to half violence against women and girls.
- There are currently significant delays in the downloading and processing
 of digital evidence. This is causing investigations and court cases to be
 delayed, which in turn causes significant distress to victims. Digital
 forensic teams within the police must be properly funded.
- Women need support to finance new devices when entering refuge, if they have been forced to leave theirs behind. Funding streams should be co-ordinated and available nationally (similarly to the Connecting Scotland scheme).
- The government should assess and seek to remove wider barriers which make women more vulnerable to TFDA. These include policies which disproportionately affect women, such as the two child benefit cap, and the reduction in Sure Start Centres and public libraries.
- The statutory definition of domestic abuse should be updated to reference technology. TFDA should be included in all future VAWG and domestic abuse related reports and policies.
- Stricter regulations are required to ensure the tech sector observes its duty to prevent and respond to abuse. Omissions relating to TFDA within the Online Safety Act 2023 have weakened the urgency and motivation to address this issue.







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Appendix: Fieldwork Paperwork

Appendix A



Participant Information Sheet & GDPR Privacy Notice

Section 1 - Participant Information Sheet

Date:

Title of Study: Exploring Technology Facilitated Domestic Abuse in the UK

Name of Researcher(s): Kathryn Brookfield

I would like to invite you to take part in my research study. Before you decide I would like you to understand why the research is being done and what it would involve for you. Before taking part, I will go through the information sheet with you and answer any questions you have. You may talk to others about the study if you wish. Ask me if there is anything that is not clear.

What is the purpose of the study?

At the moment, there is little research in the UK on the role of technology in the context of domestic abuse. The purpose of this study is to gather the experiences of women who have been subjected to domestic abuse involving technology, as well as the experiences of professionals working with them, in order to develop our understanding of this issue and to help improve the information and support available to women and professionals in the future.

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Who is the researcher?

My name is Katy, and I am a PhD candidate in the School of Sociology and Social Policy at the University of Nottingham. Before starting my PhD, I worked in an organisation improving access to support for student survivors of sexual violence, and I have previously done training with a specialist domestic abuse charity. You can ask me about myself if you have any questions.

Why have I been invited?

You are being invited to take part because you have indicated that you are a professional who has experience of working with women who have been subjected to domestic abuse involving the use of technology. I am inviting a number of professionals to take part, as I think it is important that your thoughts and experiences are heard.

Do I have to take part?

It is completely up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and you will be asked to sign a consent form. If you decide to take part, you are still free to withdraw at any time and without giving a reason. This would not affect your legal rights.

What will happen if I take part?

If you decide to be involved with the study, you will be invited to take part in an online interview using Microsoft Teams. The interview will be organised at a time which is convenient for you and should last for around one hour, but may be longer or shorter depending on how much you wish to discuss. With your consent, the interview will be audio recorded so that I can type it up afterwards. The audio recording will be held securely, and deleted after I have typed up the interview. The written copies of the interviews will be password protected and held securely.

Expenses and payments

Participants will not be paid an allowance to participate in the study.

What are the possible disadvantages and risks of taking part?

There should not be any significant disadvantages to taking part, as you will only be asked to discuss your professional experiences of working with domestic abuse involving the use of technology. However, it is possible that you may feel some low level of discomfort during or after taking part in this research, for example when recalling difficult cases which you have come across. If you decide to take part, I will be led by you, and you can choose not to discuss certain topics, to take a break, or to stop at any point.

What are the possible benefits of taking part?

I cannot promise the study will help you personally, but the information we get from this study will help to develop the information and support around technology facilitated domestic abuse available to professionals in the future, as well as to women who experience it. Some people who have taken part in similar studies have reported that they found it positive to share their experiences and have their thoughts heard, in a way that will help other professionals and women. Participants will also be offered a report of the research findings in 2022.

What if there is a problem?

If you have a concern about any aspect of this study, you should ask to speak to the researcher who will do their best to answer your questions. If you remain unhappy and wish to complain formally, you can do this by contacting the School Research Ethics Officer. All contact details are given at the end of this information sheet.

Will my taking part in the study be kept confidential?

The researcher will follow ethical and legal practice and all information about you will be handled in confidence. If you join the study, the data collected for the study will be looked at by authorised persons from the University of Nottingham who are organising the research. They may also be looked at by authorised people to check that the study is being carried out correctly. All will have a duty of confidentiality to you as a research participant and we will do our best to meet this duty.

All information which is collected about you during the research will be kept **strictly confidential**, secured within the University of Nottingham. Any information about you which leaves the University will have your name and address removed (anonymised) and a pseudonym (a fake name) will be used so that you cannot be recognised from it. Anonymised data may also be stored in data archives for future researchers interested in this area.

Your personal data (telephone number, email address) will be kept for 1 year after the end of the study so that we are able to contact you about the findings of the study (unless you advise us that you do not wish to be contacted). All identifiable research data will be kept securely for 7 years. After this time your data will be disposed of securely. During this time all precautions will be taken by all those involved to maintain your confidentiality, only members of the research team will have access to your personal data.

Although what you say in the interview is confidential, should you disclose anything to us which we feel puts you or anyone else at any risk, we may feel it necessary to report this to the appropriate persons.

What will happen if I don't want to carry on with the study?

Your participation is voluntary and you are free to withdraw at any time, without giving

any reason, and without your legal rights being affected. If you withdraw then the

information collected so far may not be possible to extract and erase after 1 month

and this information may still be used in the project analysis.

What will happen to the results of the research study?

The results of the study will be used by the researcher for their PhD qualification and

will be shared in academic journals and publications. The results will also be put into

a report which all participants will be offered a copy of. The researcher will ask you at

the end of your interview if you would like a copy when it is available. You will not be

identifiable in any publications; all of your data will be anonymised, and a pseudonym

(fake name) will be used alongside any quotes from your interview. You will have to

opportunity to pick your own pseudonym if you would like to.

Who is organising and funding the research?

This research is being organised by the University of Nottingham and is being funded

by the Economic and Social Research Council.

Who has reviewed the study?

All research in the University of Nottingham is looked at by a group of people, called

a Research Ethics Committee (REC), to protect your interests. This study has

received a favourable ethical review by the School of Sociology and Social Policy

Research Ethics Committee.

Further information and contact details

Researcher: Kathryn Brookfield (Kathryn.brookfield@nottingham.ac.uk)

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Supervisor/PI: Professor Rachel Fyson (Rachel.fyson@nottingham.ac.uk) and Dr Murray Goulden (murray.goulden@nottingham.ac.uk)

Dr Melanie Jordan, Research Ethics & Integrity Officer, REC Chair & Associate Professor in Criminology. email: melanie.jordan@nottingham.ac.uk, +44 (0)115 74 87284/ 95 15410.

Section 2 -

Privacy information for Research Participants

For information about the University's obligations with respect to your data, who you can get in touch with and your rights as a data subject, please visit: https://www.nottingham.ac.uk/utilities/privacy.aspx.

Why we collect your personal data

We collect personal data under the terms of the University's Royal Charter in our capacity as a teaching and research body to advance education and learning. Specific purposes for data collection on this occasion are for the completion of PhD and for publication.

Legal basis for processing your personal data under GDPR

The legal basis for processing your personal data on this occasion is Article 6(1a) consent of the data subject.

Special category personal data

In addition to the legal basis for processing your personal data, the University must meet a further basis when processing any special category data, including personal data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, and the processing of genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning a natural person's sex life or sexual orientation.

The basis for processing your sensitive personal data on this occasion is Article 9(2a) the data subject has given explicit consent to the processing.

How long we keep your data

The University may store your identifiable research data for a minimum period of 7 years after the research project finishes. The researchers who gathered or processed the data may also store the data indefinitely and reuse it in future research. Measures to safeguard your stored data include assigning a pseudonym to each participant and anonymisation of data.

Who we share your data with

Extracts of your data may be disclosed in published works that are posted online for use by the scientific community. Your data may also be stored indefinitely on external data repositories (e.g., the UK Data Archive) and be further processed for archiving purposes in the public interest, or for historical, scientific, or statistical purposes. It may also move with the researcher who collected your data to another institution in the future.

Appendix B



School of Sociology and Social Policy Participant Consent Form

Name of Study: Exploring Technology Facilitated Domestic Abuse in the UK

Name of Researcher(s): Kathryn Brookfield

Name of Participant:

By signing this form I confirm that (please initial the appropriate boxes):	Initials
I have read and understood the Participant Information Sheet, or it has been read to me. I have been able to ask questions about the study and my questions have been answered to my satisfaction.	
I consent voluntarily to be a participant in this study and understand that I can refuse to answer questions and I can withdraw from the study at any time, without having to give a reason.	
I understand that taking part in this study involves an online interview completed by myself that will be audio recorded. The audio recordings will be transcribed (typed up) after the interview, and once the written transcripts are completed the audio files will be deleted.	
Personal information collected about me that can identify me, such as my name, will not be shared beyond the study team. A pseudonym (fake name) will be used alongside any anonymised quotes of things I have said. Some generalised information about me, such as a broad job role, may be included alongside anonymised quotes where this information is relevant.	
My anonymised words can be quoted in publications, reports, web pages and other research outputs.	
I give permission for the de-identified (anonymised) data that I provide to be used for future research and learning.	

I agree to take part in the	estudy	
Name of Participant	Signature	 Date
Researcher's name	Signature	Date

2 copies: 1 for the participant, 1 for the project file

Appendix C



Participant Information Sheet & GDPR Privacy Notice

Section 1 - Participant Information Sheet

Date:

Title of Study: Exploring Technology Facilitated Domestic Abuse

Name of Researcher(s): Kathryn Brookfield

I would like to invite you to take part in my research study. Before you decide I would like you to understand why the research is being done and what it would involve for you. Before taking part, I will go through the information sheet with you and answer any questions you have. You may talk to others about the study if you wish. Ask me

if there is anything that is not clear.

What is the purpose of the study?

At the moment there is little research in the UK on the role of technology in the context

of domestic abuse. The purpose of this study is to gather women's experiences in

order to develop our understanding of this issue, so that better support and advice

can be given to women in the future. I am interested in knowing any ways your former

partner used technology which made you feel uncomfortable or threatened during or

after your relationship, and the ways you might have used technology to end the

relationship. I am also interested in things like how you use technology day to day,

and how confident you feel using it.

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Who is the researcher?

My name is Katy, and I am a PhD candidate in the School of Sociology and Social Policy at the University of Nottingham. Before doing my PhD, I worked in an organisation improving access to support for student survivors of sexual violence, and I have previously done training with a specialist domestic abuse charity. I am doing this study because I would like to help develop the support available to women. You can ask me about myself if you have any questions.

Why have I been invited?

You are being invited to take part because you have indicated that you have personal experience of domestic abuse involving the use of technology. I am inviting a number of women like you to take part, as I think it is important that women's thoughts and experiences are heard.

Do I have to take part?

It is completely up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and you will be asked to sign a consent form. If you decide to take part, you are still free to withdraw at any time and without giving a reason. This would not affect your legal rights.

What will happen if I take part?

If you decide to be involved with the study, you will be invited to take part in an online interview using Microsoft Teams. The interview will be organised at a time which is convenient for you and should last for between one to one and half hours, but this may be longer or shorter depending on how much you wish to discuss. With your consent, the interview will be audio recorded so that I can type it up afterwards. The audio recording will be held securely and deleted after I have typed up the interview. The written copies of the interviews will be password protected and held securely.

Expenses and payments

Participants will not be paid an allowance to participate in the study.

What are the possible disadvantages and risks of taking part?

It can be hard to talk about difficult events in our lives, and it is possible that you may feel some level of discomfort during or after taking part in this research. It is important that you think about whether you are at a point in your life where you feel able to talk about your experiences, and what support you have around you. If you decide to take part, I will be led by you, and you can choose not to discuss certain topics, to take a break, or to stop at any point.

What are the possible benefits of taking part?

I cannot promise the study will help you personally, but the information we get from this study will help to improve the support available to women who experience domestic abuse involving technology in the future. Some women who have taken part in similar studies have reported that they found it positive to share their experiences and have their thoughts heard, in a way that will help other women.

What if there is a problem?

If you have a concern about any aspect of this study, you should ask to speak to the researcher who will do their best to answer your questions. If you remain unhappy and wish to complain formally, you can do this by contacting the School Research Ethics Officer. All contact details are given at the end of this information sheet.

Will my taking part in the study be kept confidential?

The researcher will follow ethical and legal practice and all information about you will be handled in confidence. If you join the study, the data collected for the study will be looked at by authorised persons from the University of Nottingham who are organising

the research. They may also be looked at by authorised people to check that the study is being carried out correctly. All will have a duty of confidentiality to you as a research participant and we will do our best to meet this duty.

All information which is collected about you during the research will be kept **strictly confidential**, secured within the University of Nottingham. Any information about you which leaves the University will have your name and address removed (anonymised) and a pseudonym (a fake name) will be used so that you cannot be recognised from it. Anonymised data may also be stored in data archives for future researchers interested in this area.

Your personal data (address, telephone number) will be kept for 1 year after the end of the study so that we are able to contact you about the findings of the study (unless you advise us that you do not wish to be contacted). All identifiable research data will be kept securely for 7 years. After this time your data will be disposed of securely. During this time all precautions will be taken by all those involved to maintain your confidentiality, only members of the research team will have access to your personal data.

Although what you say in the interview is confidential, should you disclose anything to us which we feel puts you or anyone else at any risk, we may feel it necessary to report this to the appropriate persons.

What will happen if I don't want to carry on with the study?

Your participation is voluntary and you are free to withdraw at any time, without giving any reason, and without your legal rights being affected. If you withdraw then the information collected so far may not be possible to extract and erase after 1 month and this information may still be used in the project analysis.

What will happen to the results of the research study?

The results of the study will be used by the researcher for their PhD qualification and

will be shared in academic journals and publications. The results will also be put into

a report which all participants will be offered a copy of. The researcher will ask you at

the end of your interview if you would like a copy when it is available. You will not be

identifiable in any publications; all of your data will be anonymised and a pseudonym

(fake name) will be used alongside any quotes from your interview. You will have to

opportunity to pick your own pseudonym if you would like to.

Who is organising and funding the research?

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by the Economic and Social Research Council.

Who has reviewed the study?

All research in the University of Nottingham is looked at by a group of people, called

a Research Ethics Committee (REC), to protect your interests. This study has

received a favourable ethical review by the School of Sociology and Social Policy

Research Ethics Committee.

Further information and contact details

Researcher: Kathryn Brookfield (lgxkb5@nottingham.ac.uk)

Supervisor/PI: Professor Rachel Fyson (Rachel.fyson@nottingham.ac.uk) and Dr

Murray Goulden (murray.goulden@nottingham.ac.uk)

Dr Melanie Jordan, Research Ethics & Integrity Officer, REC Chair & Associate

Professor in Criminology. email: melanie.jordan@nottingham.ac.uk, +44 (0)115 74

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Section 2 - Privacy information for Research Participants

For information about the University's obligations with respect to your data, who you can get in touch with and your rights as a data subject, please visit: https://www.nottingham.ac.uk/utilities/privacy.aspx.

Why we collect your personal data

We collect personal data under the terms of the University's Royal Charter in our capacity as a teaching and research body to advance education and learning. Specific purposes for data collection on this occasion are for the completion of PhD and for publication.

Legal basis for processing your personal data under GDPR

The legal basis for processing your personal data on this occasion is Article 6(1a) consent of the data subject.

Special category personal data

In addition to the legal basis for processing your personal data, the University must meet a further basis when processing any special category data, including personal data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, and the processing of genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning a natural person's sex life or sexual orientation.

The basis for processing your sensitive personal data on this occasion is Article 9(2a) the data subject has given explicit consent to the processing.

How long we keep your data

The University may store your identifiable research data for a minimum period of 7 years after the research project finishes. The researchers who gathered or processed the data may also store the data indefinitely and reuse it in future research. Measures to safeguard your stored data include assigning a pseudonym to each participant and anonymisation of data.

Who we share your data with

Extracts of your data may be disclosed in published works that are posted online for use by the scientific community. Your data may also be stored indefinitely on external data repositories (e.g., the UK Data Archive) and be further processed for archiving purposes in the public interest, or for historical, scientific, or statistical purposes. It may also move with the researcher who collected your data to another institution in the future.

Section 3 – information on support

Sometimes reflecting on our lives and experiences can make us remember things we had not thought about for a long time, think about something that happened in a different way, or make us realise that our experiences are still having an impact on us now. If you feel like you would benefit from some support, please have a look at the following resources.

National Domestic Abuse Helpline Refuge's live chat service is available Monday – Friday,

3pm - 10pm: <u>Live Chat Homepage | Refuge National Domestic Abuse Helpline</u>

(nationaldahelpline.org.uk) or you can call 0808 200 247.

Women's Aid Live Chat Service Access Women's Aid webchat Monday to Sunday 10am to 4pm by visiting https://chat.womensaid.org.uk

Jewish Women's Aid Domestic Abuse Helpline Web chat available Monday and Wednesday 15:00 - 17:00 and Tuesday and Thursday 10:00 - 12:00 through https://www.jwa.org.uk/, or you can call 0808 801 0500.

Southall Black Sisters Provides advice for Black (Asian and African-Caribbean) women with issues, including domestic abuse. You can call 0208 571 9595 or visit www.southallblacksisters.org.uk

Ashiana Sheffield (England, Wales and Scotland only) Provides support to Black, Asian, minority ethnic and refugee women experiencing domestic abuse. You can call 0114 255 5740 or visit www.ashianasheffield.org

Women's Aid (Wales only) Contact - Welsh Women's Aid (welshwomensaid.org.uk) or call 0808 8010 800.

Scottish Domestic Abuse and Forced Marriage Helpline (Scotland only) Call 24/7 on 0800 027 1234, or access email and web chat from www.sdafmh.org.uk

AMINA (Scotland only) A signposting and listening service for Muslim women in Scotland. Free from mobiles and landlines and does not appear on your phone bill. Visit Helpline and Chat Service - Amina Muslim Women Resource Centre | Amina Muslim Women Resource Centre (mwrc.org.uk) or call 0808 801 0301.

Domestic and Sexual Abuse Helpline (Northern Ireland only) Support for anyone experiencing domestic abuse across NI. Helpline and webchat <u>is</u> available 24/7. Call 0808 802 1414 or visit https://dsahelpline.org/

Nexus NI (Northern Ireland only) Provides a domestic abuse helpline. Visit Homepage - Nexus NI or call 0808 802 1414

When you have experienced technology facilitated abuse, you may wish to clear your browsing history so that other people who use the device cannot see what you have been accessing. That may include having taken part in this research, or any of the support services you look up before or after. If you would like information on clearing your browsing history, please have a look at the following information provided by Refuge: Browse safely | Refuge National Domestic Abuse Helpline (nationaldahelpline.org.uk)

Appendix D



School of Sociology and Social Policy Participant Consent Form

Name of Study: Exploring Technology Facilitated Domestic Abuse

Name of Researcher(s): Kathryn Brookfield

Name of Participant:

By signing this form I confirm that (please initial the appropriate boxes):	Initials
I have read and understood the Participant Information Sheet, or it has been read to me. I have been able to ask questions about the study and my questions have been answered to my satisfaction.	
I consent voluntarily to be a participant in this study and understand that I can refuse to answer questions and I can withdraw from the study at any time, without having to give a reason.	
I understand that taking part in this study involves an online interview completed by myself that will be audio recorded. The audio recordings will be transcribed (typed up) after the interview, and once the written transcripts are completed the audio files will be deleted.	
Personal information collected about me that can identify me, such as my name, will not be shared beyond the study team. A pseudonym (fake name) will be used alongside any anonymised quotes of things I have said. Some generalised information about me, such as an age grouping like 18-24, may be included alongside anonymised quotes where this information is relevant.	
My anonymised words can be quoted in publications, reports, web pages and other research outputs.	
I give permission for the de-identified (anonymised) data that I provide to be used for future research and learning.	

I agree to take part in the study		
Name of Participant	Signature	Date
Researcher's name	Signature	Date

2 copies: 1 for the participant, 1 for the project file

Appendix E

Participant Information Sheet & GDPR Privacy Notice

Digitised for online survey

Section 1 - Participant Information Sheet

Date:

Title of Study: Exploring Technology Facilitated Domestic Abuse

Name of Researcher(s): Kathryn Brookfield

I would like to invite you to take part in my research study. Before you decide I would like you to understand why the research is being done and what it would involve for you. Before taking part, you should read the information sheet carefully and ask any questions you have. You may talk to others about the study if you wish. Ask me if there is anything that is not clear.

What is the purpose of the study?

At the moment there is little research in the UK on the role of technology in the context of domestic abuse. The purpose of this study is to gather women's experiences in order to develop our understanding of this issue, so that better support and advice can be given to women in the future. I am interested in knowing any ways your former partner used technology which made you feel uncomfortable or threatened during or after your relationship, and the ways you might have used technology to end the relationship. I am also interested in things like how you use technology day to day, and how confident you feel using it.

Who is the researcher?

My name is Katy, and I am a PhD candidate in the School of Sociology and Social Policy at the University of Nottingham. Before doing my PhD, I worked in an organisation improving access to support for student survivors of sexual violence, and I have previously done training with a specialist domestic abuse charity. I am doing this study because I would like to help

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develop the support available to women. You can ask me about myself if you have any questions.

Why have I been invited?

You are being invited to take part because you have indicated that you have personal experience of domestic abuse involving the use of technology. I am inviting a number of women like you to take part, as I think it is important that women's thoughts and experiences are heard.

Do I have to take part?

It is completely up to you to decide whether or not to take part. If you do decide to take part, you will be asked to complete a consent form on the next page.

What will happen if I take part?

If you decide to be involved with the study, you will be invited to take part in an online survey. Your answers will be held securely.

Expenses and payments

Participants will not be paid an allowance to participate in the study.

What are the possible disadvantages and risks of taking part? It can be hard to think about difficult events in our lives, and it is possible that you may feel some level of discomfort during or after taking part in this research. It is important that you think about whether you are at a point in your life where you feel able to talk about your experiences, and what support you have around you. If you decide to take part, you can choose to take a break, or to stop at any point.

What are the possible benefits of taking part?

I cannot promise the study will help you personally, but the information we get from this study will help to improve the support available to women who experience domestic abuse involving technology in the future. Some women who have taken part in similar studies have reported that they found it positive to share their experiences and have their thoughts heard, in a way that will help other women.

What if there is a problem?

If you have a concern about any aspect of this study, you should ask to speak to the researcher who will do their best to answer your questions. If you remain unhappy and wish to complain formally, you can do this by contacting the School Research Ethics Officer. All contact details are given at the end of this information sheet.

Will my taking part in the study be kept confidential?

The researcher will follow ethical and legal practice and all information about you will be handled in confidence. If you join the study, the data collected for the study will be looked at by authorised persons from the University of Nottingham who are organising the research. They may also be looked at by authorised people to check that the study is being carried out correctly. All will have a duty of confidentiality to you as a research participant and we will do our best to meet this duty.

All information which is collected about you during the research will be kept **strictly confidential**, secured within the University of Nottingham. Anonymised data may also be stored in data archives for future researchers interested in this area.

All identifiable research data will be kept securely for 7 years. After this time your data will be disposed of securely. During this time all precautions will be taken by all those involved to maintain your confidentiality, only members of the research team will have access to your personal data.

What will happen if I don't want to carry on with the study?

Your participation is voluntary, and you are free to stop the survey at any time, without your

legal rights being affected. As you are taking part anonymously, it will not be possible for your

answers to be removed from the study after you have submitted them.

What will happen to the results of the research study?

The results of the study will be used by the researcher for their PhD qualification and will be

shared in academic journals and publications. You will not be identifiable in any publications;

all of your data will be anonymised.

Who is organising and funding the research?

This research is being organised by the University of Nottingham and is being funded by the

Economic and Social Research Council.

Who has reviewed the study?

All research in the University of Nottingham is looked at by a group of people, called a

Research Ethics Committee (REC), to protect your interests. This study has received a

favourable ethical review by the School of Sociology and Social Policy Research Ethics

Committee.

Further information and contact details

Researcher: Kathryn Brookfield (lqxkb5@nottingham.ac.uk)

Supervisor/PI: Professor Rachel Fyson (Rachel.fyson@nottingham.ac.uk) and Dr Murray

Goulden (murray.goulden@nottingham.ac.uk)

Dr Melanie Jordan, Research Ethics & Integrity Officer, REC Chair & Associate Professor

in Criminology. email: melanie.jordan@nottingham.ac.uk, +44 (0)115 74 87284/ 95 15410

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Section 2 - Privacy information for Research Participants

For information about the University's obligations with respect to your data, who you can get in touch with and your rights as a data subject, please visit: https://www.nottingham.ac.uk/utilities/privacy.aspx.

Why we collect your personal data

We collect personal data under the terms of the University's Royal Charter in our capacity as a teaching and research body to advance education and learning. Specific purposes for data collection on this occasion are for the completion of PhD and for publication.

Legal basis for processing your personal data under GDPR

The legal basis for processing your personal data on this occasion is Article 6(1a) consent of the data subject.

Special category personal data

In addition to the legal basis for processing your personal data, the University must meet a further basis when processing any special category data, including personal data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, and the processing of genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning a natural person's sex life or sexual orientation.

The basis for processing your sensitive personal data on this occasion is Article 9(2a) the data subject has given explicit consent to the processing.

How long we keep your data

The University may store your identifiable research data for a minimum period of 7 years after the research project finishes. The researchers who gathered or processed the data may also store the data indefinitely and reuse it in future research. Measures to safeguard your stored data include assigning a pseudonym to each participant and anonymisation of data.

Who we share your data with

Extracts of your data may be disclosed in published works that are posted online for use by the scientific community. Your data may also be stored indefinitely on external data repositories (e.g., the UK Data Archive) and be further processed for archiving purposes in the public interest, or for historical, scientific, or statistical purposes. It may also move with the researcher who collected your data to another institution in the future.

Section 3 – information on support

Sometimes reflecting on our lives and experiences can make us remember things we had not thought about for a long time, think about something that happened in a different way, or make us realise that our experiences are still having an impact on us now. If you feel like you would benefit from some support, please have a look at the following resources:

National Domestic Abuse Helpline Refuge's live chat service is available Monday – Friday,

3pm - 10pm: <u>Live Chat Homepage | Refuge National Domestic Abuse Helpline</u>

(nationaldahelpline.org.uk) or you can call 0808 200 247.

Women's Aid Live Chat Service Access Women's Aid webchat Monday to Sunday 10am to 4pm by visiting https://chat.womensaid.org.uk

Jewish Women's Aid Domestic Abuse Helpline Web chat available Monday and Wednesday 15:00 - 17:00 and Tuesday and Thursday 10:00 - 12:00 through https://www.jwa.org.uk/, or you can call 0808 801 0500.

Southall Black Sisters Provides advice for Black (Asian and African-Caribbean) women with issues, including domestic abuse. You can call 0208 571 9595 or visit www.southallblacksisters.org.uk

Ashiana Sheffield (England, Wales and Scotland only) Provides support to Black, Asian, minority ethnic and refugee women experiencing domestic abuse. You can call 0114 255 5740 or visit www.ashianasheffield.org

Women's Aid (Wales only) Contact - Welsh Women's Aid (welshwomensaid.org.uk) or call 0808 8010 800.

Scottish Domestic Abuse and Forced Marriage Helpline (Scotland only) Call 24/7 on 0800 027 1234, or access email and web chat from www.sdafmh.org.uk

AMINA (Scotland only) A signposting and listening service for Muslim women in Scotland. Free from mobiles and landlines and does not appear on your phone bill. Visit <u>Helpline and Chat Service - Amina Muslim Women Resource Centre | Amina Muslim Women Resource Centre (mwrc.org.uk)</u> or call 0808 801 0301.

Domestic and Sexual Abuse Helpline (Northern Ireland only) Support for anyone experiencing domestic abuse across NI. Helpline and webchat is available 24/7. Call 0808 802 1414 or visit https://dsahelpline.org/

Nexus NI (Northern Ireland only) Provides a domestic abuse helpline. Visit <u>Homepage</u> - Nexus NI or call 0808 802 1414

When you have experienced technology facilitated abuse, you may wish to clear your browsing history so that other people who use the device cannot see what you have been accessing. That may include having taken part in this research, or any of the support services you look up before or after. If you would like information on clearing your browsing history, please have a look at the following information provided by Refuge: Browse safely | Refuge National Domestic Abuse Helpline (nationaldahelpline.org.uk)

Appendix F

School of Sociology and Social Policy

Participant Consent Form

**(Digitised for online survey) **

Name of Study: Exploring Technology Facilitated Domestic Abuse

Name of Researcher(s): Kathryn Brookfield

By signing this form I confirm that (please initial the appropriate boxes):	Tick
I am a woman who is aged 16 years or over, who lives in the UK	
I understand that taking part in this study involves completing an online	
survey	
I have read and understood the Participant Information Sheet. I have been	
able to ask questions about the study and my questions have been answered	
to my satisfaction.	
I consent voluntarily to be a participant in this study and understand that I	
can refuse to answer questions and I can withdraw from the study at any time,	
without having to give a reason.	
My anonymised data can be quoted in publications, reports, web pages and	
other research outputs.	
I give permission for the de-identified (anonymised) data that I provide to be	
used for future research and learning.	

Appendix G

Reference number:

School of Sociology & Social Policy

Application for Research Ethics Approval for PGR Students and Staff

This form and any attachments must be completed, signed electronically, and submitted to LQ-researchethicSSP@exmail.nottingham.ac.uk

This application must be approved by the School of Sociology and Social Policy Research Ethics Committee (SSP-REC) before potential participants are approached to take part in any research. Any significant change in the question, design or conduct of the research over the course of the research should be reported to the SSP-REC and may require a new application for ethics review. Please consult the School's Research Ethics website and reference where relevant the guidance on researcher safety, lone working, working abroad, the Mental Capacity Act 2005, research data management, e-ethics etc.

Application Checklist

You should provide documents to cover each of the questions below where your answer is 'yes', and tick to indicate the type of evidence you have enclosed. All forms and templates are on the Research Ethics website.

Questions about your application	Evidence required	Enclosed
Does the research project or thesis involve	Application for Research Ethics Approval (this form)	×
human participants or their data (even if you	Participant Consent Form	×
judge it to be of minimal risk)?	Participant Information Sheet & GDPR Privacy Notice	×
Does the research involve fieldwork or data collection off campus in the UK or overseas? If yes, please see the fieldwork guidance, Fieldwork Safety Policy and Hazard Checklist and complete the Fieldwork record form. For fieldwork-related overseas travel please see the Overseas Travel Guidance. Please consult the travel advice Flow Chart. DO NOT book overseas travel before being advised to do so.	Fieldwork record Please follow the current policy for essential face to face fieldwork during the Covid-19 pandemic. This requires additional risk assessments and additional authorisation.	0
If the research is to be conducted outside the UK or involves international partners, is ethics review required by a non-UK REC?	Non-UK REC approval	
Does the research require approval from a UK REC other than the SSP-REC (e.g., NHS- HRA, HMPPS)?	External REC approval	

Section 1: Applicant details	
Name of researcher	Kathryn Brookfield
Role	□ Postgraduate research student
	□ Staff
Email address	Lqxkb5@nottingham.ac.uk
Names of other project members	N/A
Expected start & end date of fieldwork? A proposed month and year, please	Project start date: September 2021
(e.g., May 2022). Thank you. This is needed for the ethics data retention/deletion schedule.	Project end date: September 2022

To be completed by students only		
Student ID number	20178027	
Degree programme	PhD (Social Work)	
Supervisor(s)	Professor Rachel Fyson and Dr Murray Goulden	

Project title	Exploring Technology Facilitated Domestic Abuse
Research question(s) or aim(s)	 To investigate the ways in which perpetrators use technology to abuse their partners during and post the relationship.
	To investigate the ways in which those subjected to abuse use technology as a protective or supportive factor during and post the relationship.
	 To evaluate the knowledge base of TFDA within professional groups who work with domestic abuse, including practitioners' levels of confidence when working with TFDA and how effectively practitioners are able to make evidence-based risk and safeguarding decisions.
	 To draw together existing theories in order to begin to develop a working theory specific to technology facilitated domestic abuse.
Method(s) of data collection	Interviews will be conducted online using Microsoft Teams.
Accepted remote methods of data collection are Telephone/Skype for Business/MS Teams/MS Forms/ <u>JISC</u>	The survey will be conducted using Jisc onlinesurveys.ac.uk.

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"Please note that some questionnaire platforms can collect IP addresses from participants, this would be a GDPR issue and identifiable data. Please ensure JISC / MS Forms are not set-up in this manner (e.g., turn off the 'no repeated response' function."

See here for more data management guidance.

This study will abide by the pandemic/Covid Govt guidance within all geographical areas of fieldwork, and it is recognised by the PI that it's their responsibility to ensure updated/current guidance is used.

Note for online survey methods. The participant consent form is not required however the applicant must state clearly on the application what information will be shared; how it will be shared; and how consent will be gained. Online surveys should start with the information normally included in the information sheet, followed by a (required) checkbox indicating that the subject has read and understood the provided information and agrees to complete the survey on that basis. Return of a questionnaire without the checkbox being completed can be taken as implied consent. [NB. For anonymous online surveys no signed consent is required.]

Where and when will data collection take place? (please consult the University's Lone Working, Working Abroad and Safe Conduct of Fieldwork guidelines) Interviews will take place online due to the coronavirus pandemic, between September 2021 and September 2022. Interviews will be organised at a time which is convenient to the participant and to the researcher.

The survey will be open for participants to complete online as and when they wish.

How will access to participants and/or sites be gained? Specialist domestic abuse services, women's groups, Students' Unions, and other similar organisations who work with women, some of whom the researcher already has links with, will be approached and asked if they would be willing to advertise the research to employees or clients/students as appropriate. The advertisements will state that potential participants should contact the researcher directly to maintain their anonymity and confidentiality within their organisations.

Access to participants will also be gained through advertising the research online. The researcher will advertise the research using their professional Twitter account. Specialist domestic abuse services, women's groups, Students' Unions, and other similar organisations who work with women may choose to share the research on their organisations Facebook or Twitter accounts where this is appropriate.

The researcher will also approach restaurants and venues in Lincolnshire and Nottingham, especially those who are signed up to the 'Ask for Angela' Scheme (National Pubwatch supports Ask for Angela campaign - National Pubwatch), to ask if posters advertising the research can be placed in the ladies' toilets.

How will research data be managed and stored? (See Guidance on Research

Audio files will be saved to UoN One Drive, Office 365 and deleted after transcription by the researcher.

Data Handling for PGR Students and	Survey data will be saved to UoN One Drive, Office 365 and
Staff & Digital Research	inputted into SPSS for analysis.
Please note that if you use an external transcription service, a confidentiality agreement must be in place.	
If using UON Auto Transcription Service please see ethics guidance here. You must also have confirmed your funder approves usage of this cloud based service.	

Data security: All research data should	Yes, I will use my UoN log-in OneDrive,	⊠Yes
be stored securely using UoN log-in	SharePoint, or Teams - with restricted	- N-
OneDrive, SharePoint, or Teams - with	ownership and access, to secure all research	□No
restricted ownership and access.	data.	
	No, I am providing additional information	
	detailing my data security measures above	
	Only 'audio-only' interview recordings are	⊠Yes
	permitted. I will immediately transfer audio	
	recordings to O365.and once transcribed,	□Not
	delete the interviews.	recording
		interviews
A DBS check is required if the research	☐ DBS Not required	
involves being left alone with children		
under the age of 16 and/or vulnerable	■ DBS Required / DBS Number is: 001745599933	
adults		

Section 3: Questions about the appropriate REC to review the application	Yes	No
Does the study involve: patients or social care users as research participants, relatives or carers of past/present users of NHS or social care services, the use of NHS or social care records or data, Department of Health funding? (NB. NHS-HRA review is not normally required for research involving NHS or social care staff recruited as research participants by virtue of their professional role, except where the proposal raises significant ethical issues)		×
Does the study involve participants age 16 or over who are unable to give informed consent (e.g., people with learning disabilities: see Mental Capacity Act 2005/ Adults with Incapacity (Scotland) Act 2000)?		×
Does the study involve staff and/or prisoners within HMPPS prison establishments, offenders and/or staff within the National Probation Service/Community Rehabilitation Companies, or staff within HMPPS Headquarters?		×
If you have answered 'yes' to any of the questions above, you will need to send this completed form to the SSP-REC for reference and submit your research for ethics review to the appropriate body (e.g., NHS-HRA, HMPPS). Once granted, a copy should be sent to the SSP-REC for its records.		

Section 4: Ethical considerations

Please answer ALL_of the following questions by ticking the appropriate box and providing additional information in the text box where required.

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4.1: Questions about consent	Yes	No
Does the research involve other potentially vulnerable groups: children under 16, residing in residential care, having a cognitive impairment, mental health condition, physical or sensory impairments, previous life experiences (e.g., victims of abuse), other (please specify below)? *Please note that research which intends to involve 5,000+ participants, pregnant women, and/or children under the age of 5 will automatically involve the central university insurance team.*	×	0
Will the study require the co-operation of a gatekeeper for initial access to the groups or individuals to be recruited?	⊠	
Will the research involve people taking part in the study without their knowledge and consent at the time?		×

If you have answered 'yes' to any of the questions about consent, you will need to describe more fully how you plan to deal with the ethics issues raised by your research in the box below:

All participants in the survey and some interview participants will have previous life experience of technology facilitated domestic abuse. However, this will not affect their ability to give informed consent. Participants will be provided with an information sheet prior to taking part in the survey or interview, and the researcher will explain confidentiality and the limits to this, as outlined in the safeguarding protocol. Participants will have the opportunity to ask the researcher any questions they may have before taking part in the research. Participants will be asked to explain in their own words what the research is about and what their participation will involve before signing the consent form to ensure they have understood what they are consenting to.

Some participants may be recruited through advertising the research with organisations including domestic abuse specialist services, women's centres, and Students' Unions. However, all participants will be asked to contact the researcher directly to maintain their anonymity and ensure consent. Participants will be given their own participant information sheet and will be talked through this individually, and they will have to opportunity to ask questions and to decline to participate.

4.2: Questions about the potential for harm	Yes	No
Will the research involve discussion of sensitive or potentially sensitive topics (e.g. sexual activity, drug use, physical or mental health, racism, prejudice, illegal activity)? "Please note that, regarding illegal activities, confidentiality will be breached and relevant authorities may be informed where offences related to the following are disclosed: terrorist activities; money laundering; treason; neglect and/or abuse of children or vulnerable adults. Contact the REC Chair for further guidance, if required."	×	
Will the research involve physically invasive procedures, the collection of bodily samples or the administering of drugs, placebos or other substances (e.g., vitamins, food)?		×
Will the research place participants at any greater physical or emotional risk than they experience during their normal lifestyles?		\boxtimes
Will the study involve prolonged or repetitive investigation (e.g. longitudinal research)?		\boxtimes
Will the research expose the researcher to any significant risk of physical or emotional harm (e.g., lone working in international research)? "Please note that where UoN researchers are undertaking a funded research project with external non-UoN partner organisations, there will be a signed contract which covers partner professional indemnity insurance and sub-contractor agreements; plus, relevant research ethics and integrity elements will be agreed and recorded (e.g., data management and privacy)."		×
Does the research involve members of the public in a research capacity (participant research)?		\boxtimes

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If you have answered 'yes' to any of the questions about the potential for harm, you will need to describe more fully how you plan to deal with the ethical issues raised by your research in the box below for both researcher and participants. Please also reflect carefully on whether/how your research and the current COVID-19 context may represent a risk of emotional harm, both to your research participants and to you as researcher.

e.g. for the researcher, planned debrief with Supervisor, PI, others in study or peers, <u>UON Counselling service</u>, <u>Student mental health and wellbeing</u>. Signpost participant to appropriate debrief contact or counselling support.

Professional participants will not be exposed to greater emotional risk than they would experience in their day to day lives, as they will be asked to share their work based experiences with technology facilitated domestic abuse (e.g. number of their clients who have experienced this, how confident they feel providing advice on technology facilitated domestic abuse).

Participants who are women with experience of technology facilitated domestic abuse may feel some emotional discomfort from taking part in the research, however this should not exceed that which they experience in their day to day lives living with the legacy of abuse. All participants will be provided with an information sheet and topic guide before deciding to take part in the research so that they are able to make an informed decision as to whether they want to, and feel able to, take part. The potential emotional risks will be outlined clearly, as will the potential benefits of taking part, such as being able to share their thoughts and experiences in a way which will contribute to change for other women. Participants will have the opportunity to discuss any concerns or questions with the researcher prior to taking part, and it will be made clear to them that they can withdraw from the research or terminate their participation at any time. All participants will be provided with a list of sources of support, both local and national, whether or not they decide to participate. The research has been designed in a way which is sensitive to women's experiences of abuse, for example participants will be given the opportunity to choose their own pseudonym, share what terminology they prefer to use, and any phrasing they wish to avoid.

Video interviews rather than telephone interviews have been selected so that the researcher can have greater access to assess non-verbal cues by participants. If a participant appears to become distressed or distant, the researcher will ask the participant if they would like to take a break, end the interview completely, or postpone the remainder of the interview to complete at another time. If the participant wants to continue with the interview, the researcher will continue to monitor the situation and offer the participant the options to stop or postpone again if necessary. If a situation arises where the researcher feels the participant's wellbeing is at risk, they will stop the interview on the participants' behalf. All participants will have been given the list of helplines before the start of their interview, and any participant who becomes distressed will be reminded of these. The researcher will offer to talk through the helplines with the participant to decide which would be most appropriate and how the participant might like to make contact (e.g., telephone, email, live chat), if the participant would like to do this. If a participant has become noticeably distressed during an interview this will be followed up by the researcher with the lead supervisor afterwards, to review whether any changes need to be made to the interview schedule.

If participants disclose during the interview that a child or vulnerable adult is at risk of neglect or abuse, the researcher will have a duty to refer this onwards to the appropriate authority. Participants will be made aware of this both before taking part in the research and at the start of the interview.

The researcher should not be exposed to any new or significant risk due to long standing work in this area. However, debriefs with the lead supervisor will be available after interviews, and the researcher is aware of the availability of other support within and outside of the University.

4.3: Questions about data management preparation	Yes	No
Are you aware of the GDPR and is the proposed research compatible with it?	⊠	
Is the research to be undertaken in the public interest?	×	
Will research participants be given/directed to an appropriate GDPR privacy notice?	⊠	
Have you read the University of Nottingham's <u>Code of Research Conduct and Research Ethics</u> , and agree to abide by it?	×	
Have you read the <u>Data Protection Policy and Guidance</u> (login required) of the University of Nottingham, and agree to abide by them?	×	

If you have answered 'no' to any of the questions about the potential for harm, you will need to describe more fully how you plan to deal with the ethical issues raised by your research in the box below:

4.4: Questions about data collection, confidentiality and storage		No
Will the research involve administrative or secure data that requires permission from the appropriate authorities before use?		×
Will data collection take place somewhere other than public and/or professional spaces (work setting)?	×	
Will the research involve internet participants or other visual/vocal methods where participants may be identified?		
Will the personal data of research participants (e.g., name, age, gender, ethnicity, religious or other beliefs, sexuality, physical or mental health conditions) be revealed in research outputs or stored data?	×	
Will the research involve the sharing of data or confidential information beyond the initial consent given?		
Will financial inducements (other than reasonable expenses and compensation for time) be offered to participants?		×
Please note that participant vouchers need HoS sign-off beforehand, and usage of the voucher request form and central system.		

If you have answered 'yes' to any of the questions about data collection, confidentiality and storage, you will need to describe more fully how you plan to deal with the ethics issues raised by your research in the box below:

Interviews will be conducted online, and therefore participants may decide to take part from their own homes. Women who have experienced technology facilitated domestic abuse will be interviewed about former rather than current relationships, so their ex-partner should not be present. Participants will be advised before the interview that they should consider their surroundings and who may be present in the household (e.g. other family members and children), and the researcher will offer to organise the interview at a time which the participant feels is appropriate for them. Participants will be provided with a topic guide prior to the interview so that they can have an understanding of and assess what may be discussed.

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Participants in the survey may also decide to take part in their own homes. Whilst there is less control over when and where survey participants take part, participants will be provided with information about the content of the survey and advised to be mindful of their surroundings. The survey link will not identify the study, and information on clearing browsing history will be included.

Participants general profession, age, ethnicity, and sexuality may be included in the research outputs where this is relevant to the analysis. However, any quotes used will be altered to retain the meaning whilst protecting participants anonymity, and only broad demographic categories will be used (e.g. 18-24)

Interviews will be audio recorded with the participants consent. Audio files will be held securely on UoN One Drive, Office 385 and deleted after transcription.

Confidentiality may have to be broken where a participant discloses that a child or vulnerable adult is at risk of neglect or abuse. A protocol for situations where an ongoing risk is identified has been drawn up with the supervisory team and submitted with this ethics application.

Section 5: Ethical approval

Kathryn Brookfield

DECLARATION OF ETHICAL RESEARCH

By signing this form I agree to work within the protocol which I have outlined and to abide by the University of Nottingham's Code of Research Ethics. If I make any changes to my protocol which would change my answers to any of the questions above I will submit a new form to my supervisor or module convener and to LQ-researchethicSSP@exmail.nottingham.ac.uk.

12th August 2021

Signature of applicant	Date
AUTHORISATION Having reviewed the ethical issues	arising from the proposed research, I authorise the
research to go ahead.	
Laure Kyear.	12 th August 2021
Signature of supervisor	Date
The School's Research Ethics Committee authorises the research to go ahead as described.	
Signature of REC / REIO	Date

Please remember to enclose all of the documentary evidence required to support your application, as indicated in the checklist on the front page of this application

Appendix H



Faculty of Social Sciences School of Sociology & Social Policy

University of Notlingham University Park Notlingham NG7 2RD

Reference: 2122-03-PGR

14.10.21

Dear Kathryn

Application for ethical review from the School of Sociology and Social Policy REC

Project title: Exploring Technology Facilitated Domestic Abuse

The School of SSP REC has reviewed your planned project and can now give a Favourable Ethical Opinion (FEO); therefore, you now have ethical approval to commence your study, subject to the conditions and ethical processes outlined in your application being upheld. This Favourable Ethical Opinion is subject to you: adhering to the details specified in the application; securing local access approvals where required; complying with all applicable local policies and regulations, and any contractual and funder requirements; reporting any deviations and adverse events to this committee.)

Please note:

- that any substantial changes or deviations from the application's content and planned research will need to be reviewed by the committee prior to their implementation - please contact the REC Chair (Dr Mel Jordan) to debate the significance of the desired amendments:
- COVID: it is the researcher's / PI's responsibility to keep up-to-date with relevant Government, University and local guidelines/safety measures - please implement any changes as required, including where necessary postponing fieldwork and/or seeking other means with which to collect/create data as appropriate and subject to REC (re)submission/approval;
- Please re-read all 4 x COVID agreements, before you organise and commence fieldwork:
- that research undertaken by UoN postgraduate researchers and staff is subject to a University mandated annual ethics audit process, whereby several studies per year are selected for audit.

Kind regards,

Dr Mel Jordan

Research Ethics & Integrity Officer, REC Chair, & Associate Professor in Criminology

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M. M. Sde

Appendix I

Protocol for disclosures requiring referral due to ongoing risk to a participant, a child, or a vulnerable adult

All participants will be made aware of the following information regarding confidentiality, and the limits to this, before taking part in an interview.

Section 1: Self-disclosures by participants

Only those who have experienced technology facilitated abuse from a former partner will be recruited onto the study, as the risk of harm posed to those who are still in an abusive relationship could be increased as a direct result of their participation in the study. Participant safety cannot be effectively managed during online research where the participant is still in a relationship with the perpetrator.

All participants will be adults with capacity to make choices about their own lives. Therefore, decisions about the sharing of previously unknown information regarding potential or ongoing harm to themselves will be discussed with them, and their wishes will be respected wherever possible. If the participant consents to a safeguarding referral, this will be completed with them. Participants may also wish to complete a referral to their local domestic abuse service.

Participants' wishes regarding information sharing may be overridden only in select circumstances. This will include where there is a previously undisclosed and ongoing risk posed to a child or vulnerable adult who is not the participant (discussed in section 2), or where a criminal offence which is notifiable to the ethics committee, and/or the police has been committed. Participants' wishes may also be overridden in an emergency situation, for example where they pose a serious and immediate risk to

themselves or others, or where another individual poses a serious and immediate risk to them.

In the rare event that it is felt an adult safeguarding referral for a participant may need to be made without their consent, the researcher will seek advice from one of the following people:

- Professor Rachel Fyson (Head of School and Professor of Social Work)
- Kirsten Morley (Assistant Professor in Social Work & registered social worker,
 with experience of adult safeguarding work)
- Amanda Colclough (Practice Learning Manager for Social Work & registered social worker, with experience of adult safeguarding work)

Participants will always be informed that their disclosure is being shared, who it is being shared with and why.

Section 2: Disclosures about a child or a vulnerable adult who is not the participant

This protocol will be followed if a participant shares information that suggests a child or adult who is not the participant is currently experiencing or is at risk of experiencing abuse or neglect which has not previously been reported to safeguarding authorities.

All previously undisclosed information regarding the potential or actual abuse or neglect of a child will be shared with Children's Services in the child's local authority. Where the participant has made a disclosure about a previously unknown and ongoing risk to their own children, the consent of the participant for a referral to their local Children's Services will be sought wherever possible. However, as the disclosure is regarding a child, the referral will be made regardless of the participant's consent or non-consent. The participant who made the disclosure will be informed that the information is being shared and who it is being shared with, unless this is

deemed to put the child in question at further risk of harm. This decision will be discussed with the named individuals below:

- Professor Rachel Fyson (Head of School and Professor of Social Work)
- Rachael Clawson (Associate Professor of Social Work & registered social worker, with experience of child protection work)
- Francesca Clark (Teaching Associate in Social Work & registered social worker, with experience of child protection work)

If it is felt that a safeguarding referral for an adult who is not the participant may need to be made, the researcher will seek advice from one of the following people:

- Professor Rachel Fyson (Head of School and Professor of Social Work)
- Kirsten Morley (Assistant Professor in Social Work & registered social worker,
 with experience of adult safeguarding work)
- Amanda Colclough (Practice Learning Manager for Social Work & registered social worker, with experience of adult safeguarding work)

All attempts will be made to schedule interviews during the hours the University is open. In the event this is not possible or where interviews run outside of university operating hours, and where urgent advice is required, the researcher will contact the relevant Emergency Duty Team or the police as appropriate.

Section 3: If the participant is a student at a university

All interview participants will be over the age of 18, and therefore legally adults. If a participant who is a student at a university or college discloses that they, or another student over the age of 18 is at risk of or is experiencing abuse which is not already known, information may be shared with their place of education with their consent.

If a student participant discloses that another student under the age of 18 is at risk of or is experiencing previously undisclosed abuse, a referral will be made to that child's local Children's Services, and/or to their university or college as appropriate. If the student at risk is enrolled at the University of Nottingham the university safeguarding policy will be adhered to (https://www.nottingham.ac.uk/governance/documents/safeguarding-policy.pdf). Professor Rachel Fyson will be informed as the researcher's supervisor,

and Andrew Winter will be informed as the Campus Life Director and Lead

Safeguarding Officer.

followed.

If a student participant makes a disclosure about previously unknown abuse to a child or adult who is not affiliated to the university, the procedure in section 2 will be