

**Student No: 10066292**

**Module Code: (PSTY4054 UNUK) (FYR1 19-20)**

## **University of Nottingham**

### Assessed Coursework Cover Sheet for Applied Psychology Postgraduate Courses

**Module Title:** Forensic Psychology Research Dissertation

**Coursework Title:** Age and Experience over attachment: Inexperience,  
not upbringing may lead to an increase in Post-Relationship Contact

**Word Count (excluding references and appendices):** 11935

This is to confirm that I submit this piece of assessed work in the full  
knowledge of the published guidelines on plagiarism and its consequences

Type name Tom Arnold

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## Ethics Application form

Application for approval of all studies involving **Healthy Human Participants only conducted by Staff and Students of the University of Nottingham which don't involve an invasive procedure**

**Please complete one application form, consent form (template attached) and participant information sheet (template attached), one detailed study proposal (template attached) Please e-mail 1 copy of each as attachments**

**1 Title of Project:** Post-Relationship stalking: Is attachment style the most important factor in predicting stalking behaviours

**Short title:** Post-Relationship stalking

**2 Names, Qualifications, Job Title, School/Divisional/Unit/Address, email of all Researchers:**

**Chief Academic/Supervisor:**

Professor Kevin Browne – Kevin.Browne@nottingham.ac.uk  
Director of the Centre for Forensic and Family Psychology, Faculty of Medicine & Health Sciences  
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YANG Fujia Building, Jubilee Campus  
Wollaton Road, Nottingham  
NG8 1BB, UK  
Elizabeth.Paddock1@nottingham.ac.uk

**Other key researchers/collaborators: /**

**Students name and course:** Tom Arnold – Forensic and Criminological Psychology MSc

**3 Type of Project:** Online survey/Questionnaire

**4 Location of study:** Online

**5 Description and number of participants to be studied:**

The aim is for the participants to be as diverse as possible. No one will be removed from the study at the start based solely on demographics, however, if there is a

large skew with certain demographics then it will be considered that they are removed. Individuals will also be split into three age groups: Young people (13-18), Emerging adults (18-25), Older adults (26+). However, individuals must have had experience of a breakup within the past two years to fulfil the sample criteria. A G power analysis was conducted using the effect size relating to MacKenzie, Mullen, Ogloff, McEwan and James' (2008) data. The resultant data showed that a sample size of around 151 will be needed to fulfil the needed sample to achieve valid results.

**6 Summary of Experimental Protocol - Please give details below (no longer than this side of A4) under the following headings: - 1. Background. 2. Aims (to include hypothesis to be tested Primary and secondary endpoints), 3. Research protocol and methods, 4. Measurable end points/statistical power of the study. 5. Key references. This section must be completed. This is in addition to a more detailed project proposal/protocol which should be attached to this application. Please use 10pt typeface.**

Stalking is a new area of research, meaning a vast amount of studies are needed in order to gain a clear picture of the phenomena. Stalking was only criminalized in 1997 in the UK so much of the previous behaviours that could have been categorized as criminal may have gone unnoticed. Stalking is defined as repeated instances of intrusive behaviours that occur over a significant period of time Roberts (2002).

1. This current piece of research is interested in the events of 'stalking' that occur post relationship. As research has shown, 'stalking' or post relationship contact behaviours have become much more common in modern day society (Lee & O'Sullivan, 2014) – with 87.8% of people saying they engaged in one contact behaviour post-relationship. Further studies have shown that this prevalence is lower than shown by Lee and O'Sullivan (2014), however, the percentage remains high, at 36% (Ybarra, Langhinrichsen-Rohling & Mitchel, 2017). This then results in research to analyse what has causes these stalking-like behaviours – this current piece of research attempts to draw from research from Langhinrichsen-Rohling, Palerea, Cohen and Rohling (2000) and Lee and O'Sullivan (2014). Both studies looked at demographics in an attempt to predict these stalking-like behaviour across a wide range of demographics (Age, gender, race). This study will expand upon this, by including religion and sexuality as factors in its analysis, as well as including a separation between online and offline behaviours and asking the individual if it was themselves or their ex-partner who performed the behaviours. In addition, attachment styles have also been shown to influence stalking. Patton, Nobles and Talbot (2010) found that those who showed more stalking behaviours rated higher on the insecure-anxious and lower on the insecure-avoidant scale, this is to be expected and has been further supported by Tonin (2004).

2. Q1. Do younger people engage in more online behaviour than older people?  
Q2. Which stalking behaviours are more prevalent in the general population?  
Q3. Are there any differences between genders in the stalking behaviours shown?  
Q4. Are there any differences between ethnic groups with regards to stalking behaviours?

Q5. Are there differences in stalking behaviours across the age groups due to differing attachment styles?

**3.** The participants will be assessed using three questionnaires made specifically for this study. The first questionnaire will be based solely on demographics and will ask individuals for their age, sex, ethnicity, sexuality, education, relationship status, employment at the time of the behaviours, religion, presence of children. Then upon completing this questionnaire they will be presented with a questionnaire relating to post-relationship contact behaviours. These will explore online and offline behaviours. An example of an online behaviour is "Did you post on social media about them?" and an example of an offline behaviour is "Did you go out of your way to see them?". After this they will be asked about their experiences when performing the behaviours; for example, "How did you feel after the behaviours?" and they will answer on a scale of 1-5 (1 being negative and 5 being positive). Finally, they will be presented with an attachment based questionnaire, the Relationship Scales Questionnaire (RSQ) (Griffin & Bartholomew (1994). The RSQ is a 30 point attachment questionnaire that is used to suggest which attachment styles a person may be.

**4.** The study will look at each of the demographics in turn, and whether they influence the stalking-like behaviours. Whilst doing this specifically for the stalking-like behaviours in general it will analyse if there are differences between online and offline contact as well as the differences between the perpetrators and the victims. A G power analysis was conducted so that the sample size will be large enough for an effect to be found, a sample size of 151 will be needed to do so.

**5.**

Langhinrichsen-Rohling, J., Palarea, R.E., Cohen, J., & Rohling M.L. (2000). Breaking up is hard to do: unwanted pursuit behaviors following the dissolution of a romantic relationship. *Victims and Violence*, 15(1), 73-90.

Lee, B.H., & O'Sullivan, L.F. (2014). The ex-factor: Characteristics of online and offline postrelationship contact and tracking among Canadian emerging adults. *The Canadian Journal of Human Sexuality*, 23(2), 96-105.

Haugaard, J.J., & Seri, L.G. (2003). Stalking and Other Forms of Intrusive Contact After the Dissolution of Adolescent Dating or Romantic Relationships. *Violence and Victims*, 18(3), 279-297.

Patton, C. L., Nobles, M. R., & Talbot, K. (2010). Look who's stalking: Obsessive pursuit and attachment theory. *Journal of Criminal Justice*, 38(3), 282-290.

Purcell, R., Pathe, M., & Mullen, P. (2004). When do repeated intrusions become stalking? *Journal of Forensic Psychiatry and Psychology*, 15(4), 571-581.

Roberts, K.A. (2002). Stalking Following the Breakup of Romantic Relationships: Characteristics of Stalking Former Partners. *Journal of Forensic Sciences*, 4(5), 1070-7.

Tonin, E. (2004). The attachment styles of stalkers. *The Journal of Forensic Psychiatry & Psychology*, 15(4), 584-590.

**7 Lay Summary of project** (in lay words) : (maximum 200 words)  
***Summaries which include language which is too technical for lay members of the Committee will be rejected.***

This current piece of research is interested in the events of 'stalking' that occur post relationship. As research has shown, 'stalking' or post relationship contact behaviours have become much more common in modern day society. Participants will receive three questionnaires, one on demographics, one on attachment style and another on post-relationship contact behaviours. Participants will be asked, in their most recent breakup, whether they (or their ex-partner) had participated in any contact behaviours after the dissolution of the relationship. The contact behaviours have been split into online and offline behaviours for example, 'Did you post on your social media about them'. After this they will be asked to rate how positive the experience was and the reactions of the behaviours. The behaviours elicited by individuals will then be compared against their demographics to ascertain if any demographics predict which groups of people will be more likely to commit stalking offences. They will also be asked questions relating to attachment to determine what attachment style they are, whether they seek attention, or are ambivalent towards it.

**8 Will written consent be obtained from all volunteers?**

Written consent will be gained from the participant. The word 'stalking' will not be used until after the experiment has concluded to avoid stigmatisation and demand characteristics. Upon completion of the study full consent will be gained and any that no longer wish to be a part of the study will have their data removed.

**9 Will an inconvenience allowance be offered**

No

**10. FUNDING**

N/A

**11 Studies involving NHS Staff, organisations, Services**

N/A

**12 How will the subjects be chosen?**

The sample will be recruited online randomly to avoid sampling bias. The questionnaire will be posted on JISC online surveys and will then be distributed.

**13 Describe how possible participants will be approached.**

Participants will be approached mainly in the student population due to the ease of access. The survey link will be promoted through social media (e.g. Twitter, Facebook). The minimum age to sign up to these social media sites is 13 years.

**14 What sources of information will be included? i.e, pre-existing research database, student records, visits to other organisation, online resource**

JISC online surveys have been contacted regarding the use of their tools to format and distribute the questionnaires. Access has been granted and the questionnaire needs to be uploaded and formatted on this system. The data will be collected exclusively for this study.

**15 Whose permission will be sought to access this information (eg GP, consultant Head of Organisation)?**

JISC have been contacted and access approved to host the questionnaire online.

**16 For interview/focus groups:**

N/A

**17 Data Storage and Data management**

Data will be stored on a password protected computer, stored in a secure and locked office for 7 years. No identifiable personal data will be collected. Data will be kept anonymous and will not be shared under any circumstances. Consent forms, information sheets and debriefs will all be uploaded online to the JISC service so participants will have access to this when completing the study.

**18 What ethical problems do you foresee in this project?**

Participants will be asked to consider their previous relationship. In doing so, they may experience emotions and thoughts associated with their relationship. Participants will be advised from the start of the questionnaire that they are able to stop at any time. The term 'stalking' is not being used in wording of any of the information sheets. This is to prevent participants from giving socially desirable answers, as there can be a stigma that comes along with the word 'stalking'. Instead terms like post-relationship behaviours or contact will be used as they are a lot less charged than 'stalking'.

**19 What are the possible limitations of the proposed design of this study?**

The general experimental paradigm used for studies on post-relationship stalking is the use of questionnaires or surveys. Questionnaires can often lead to demand characteristics from participants and this could influence the validity of the results. However, participants will be reminded that all information will be kept anonymous, both before and after the study in an attempt to reduce the demand characteristics. In addition to this, there is a lot of debate over the definition of stalking among the literature. This current piece of research will use the definitions in the law; whilst drawing on the research to aid the definitions to counteract this.

**DECLARATION:** I will inform the Medical School Ethics Committee as soon as I hear the outcome of any application for funding for the proposed project and/or if there are any significant changes to this proposal. I have read the notes to the investigators and clearly understand my obligations as to the rights, welfare and dignity of the subjects to be studied, particularly with regard to the giving of information and the obtaining of consent.

**Signature of Lead Investigator:**



**Date:** 10.01.2020

**\*\*Nb If you are student your supervisor must sign this form otherwise it will be rejected**

**Name and address for correspondence with applicant:**

Tom Arnold  
Division of Psychiatry and Applied Psychology  
The University of Nottingham  
Yang Fujia Building  
Wollaton Road  
Nottingham  
NG8 1BB

Dr Elizabeth Paddock  
Division of Psychiatry and Applied Psychology  
The University of Nottingham  
Yang Fujia Building  
Wollaton Road  
Nottingham  
NG8 1BB

Please submit your completed application to:

Administrative Support  
Faculty of Medicine & Health Sciences Research Ethics Committee  
c/o Faculty PVC Office  
B Floor, Medical School (nr Bridge)  
QMC Campus, Nottingham University Hospitals  
Nottingham  
NG7 2UH

e-mail: [louise.sabir@nottingham.ac.uk](mailto:louise.sabir@nottingham.ac.uk)





**School of Medicine**

**Consent Form**

*Ethics Approval Number:*

*Researcher(s):* Tom Arnold – Tom.Arnold@nottingham.ac.uk

*Supervisor(s):* Kevin Browne - Kevin.Browne@nottingham.ac.uk

Elizabeth Paddock - Elizabeth.Paddock1@nottingham.ac.uk

The participant should answer these questions independently:

- Have you read and understood the Information Sheet? YES/NO
- Have you had the opportunity to ask questions about the study? YES/NO
- Have all your questions been answered satisfactorily? YES/NO
- Do you understand that you are free to withdraw from the study? YES/NO (at any time and without giving a reason)
- I give permission for my data from this study to be shared with other researchers provided that my anonymity is completely protected. YES/NO
- Do you agree to take part in the study? YES/NO
- I understand that my participation is voluntary and I can end the study at any time and withdraw my data by clicking the EXIT button. YES/NO

“This study has been explained to me to my satisfaction, and I agree to take part. I understand that I am free to withdraw at any time.”

Signature of the Participant:

Date:

Name (in block capitals):



**School of Medicine**  
**Information Sheet**

*Title of Project:* Post-relationship contact behaviours

*Ethics Approval Number:*

*Researchers:* Tom Arnold – Tom.Arnold@nottingham.ac.uk

*Supervisors:* Professor Kevin Browne - Kevin.Browne@nottingham.ac.uk

*Dr Elizabeth Paddock - Elizabeth.Paddock1@nottingham.ac.uk*

This is an invitation to take part in a research study on post-relationship contact behaviours

Before you decide if you wish to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully.

**What is the purpose of the study?**

The study will look at and analyse the behaviours during and after a relationship – basic information such as gender, race etc are expected to influence the behaviours before and after breakups. The main purpose of the study is to determine which factors influence behaviours shown in a relationship and behaviours shown after the relationship ends, with attachment style expected to be the largest influence.

**What will happen if I take part?**

If you participate, you will be asked to fill in three questionnaires. One questionnaire will ask you basic information needed for the study (age, sex, ethnicity etc). You will then be asked questions about your most recent relationship and the behaviours that came about after the breakup of it. One final questionnaire will be presented relating to attachment, used to determine attachment style. It is important that you answer all questions truthfully.

**What will happen if I do not want to continue with the study?**

Participation in this study is totally voluntary and you are under no obligation to take part. You are free to withdraw at any point before or during the study. You can stop at any point during the questionnaire for any reason, before submitting your answers, by pressing the 'Exit' button / closing the browser. Your answers will only be uploaded after you have clicked the submit button at the end of the final questionnaire.

**What will happen to the results of the study?**

All data collected will be kept confidential and used for research purposes only. It will be stored in compliance with the General Data Protection Regulation. Your answers will be completely anonymous and we will not see, collect or store your

IP address. This questionnaire study is for an MSc in Forensic and Criminological Psychology student project and the final report will be written up as a dissertation and may be published in an academic journal or presented at a conference.

If you have any questions or concerns please don't hesitate to ask. We can also be contacted after your participation at the above address.

If you remain unhappy and wish to complain formally, please contact the FMHS Research Ethics Committee Administrator,  
E-mail: [FMHS-ResearchEthics@nottingham.ac.uk](mailto:FMHS-ResearchEthics@nottingham.ac.uk).



School of Medicine

Debriefing Form

**Name of Experimenter:**

Tom Arnold

**Name of Supervisor:**

Professor Kevin Browne

Dr Elizabeth Paddock

**Email of Experimenter:**

Tom.Arnold@nottingham.ac.uk

**Email of Supervisor:**

Kevin.Browne@nottingham.ac.uk

Elizabeth.Paddock1@nottingham.ac.uk

Post-relationship stalking: What characteristics make a stalker?

Thank you for completing and submitting the questionnaire.

The study conducted looked at how individuals who has gone through a break-up recently may resort to stalking behaviours to try to restart the relationship. This is a common occurrence and happens in many relationship break-ups, however, a small minority resort to much more extreme methods. The prevalence of this is extremely small, this study looked at the more common occurrences such as texting or ringing an individual after the break-up.

Data will be stored on a password protected computer, stored in a secure and locked office for 7 years. No identifiable personal data will be collected. Data will be kept anonymous and will not be shared under any circumstances

If you feel you are struggling after or during a relationship, please contact organisation such as "Relate". Relate provide support during and after relationships for all individuals regardless of gender or sexual orientation.

All data collected will be kept strictly confidential and used for research purposes only. It will be stored in compliance with the Data Protection Act.

If you have any questions, wish to withdraw from the research or have any concerns, please contact the research Tom Arnold at tom.arnold@nottingham.ac.uk.

**Useful Reading:**

Langhinrichsen-Rohling, J., Palarea, R.E., Cohen, J., & Rohling M.L. (2000). Breaking up is hard to do: unwanted pursuit behaviors following the dissolution of a romantic relationship. *Victims and Violence*, 15(1), 73-90.

Lee, B.H., & O'Sullivan, L.F. (2014). The ex-factor: Characteristics of online and offline post relationship contact and tracking among Canadian emerging adults. *The Canadian Journal of Human Sexuality*, 23(2), 96-105.

# **Title: Post-Relationship stalking: Is attachment style the most important factor in predicting stalking behaviours**

## **Overview of the topic**

Stalking is a new area of research in terms of psychology – stalking was only defined as a crime due to The Protection From Harassment Act (1997). Only after this law was created was it possible for a person to be convicted for behaviours that are defined as stalking behaviours. Stalking can be defined as a pattern of persistent pursuit behaviours often directed towards a single individual occurring on several occasions over a large period of time (Roberts, 2002). Purcell, Pathe and Mullen (2004) add to this and suggest that the behaviours relating to instances of stalking are extremely diverse and these behaviours are intrusive to the victim and can impact a victims' functioning in everyday life.

Stalking can occur for multiple reasons: prior to, during and after relationships, as well as stranger stalking (Korkodeilou, 2016). This current piece of research is interested in the stalking behaviours elicited post-relationship. Haugaard & Seri (2003) assessed the prevalence of stalking behaviours in undergraduate students – it was found that around 20% had been the victim of unwanted pursuit behaviours and 8% had initiated them. However, Lee and O'Sullivan (2014) conducted a study that focused on emerging adults (18-25 year olds) and analysed the behaviours shown after the dissolution of the romantic relationship. The behaviours that were measured were defined as Post-Relationship Contact and Tracking (PRCT). PRCT behaviours were found in 87.8% of the breakups; with both online and offline forms used in conjunction and rarely

alone. In addition to this, further evidence suggests that stalking is prevalent post relationships and certain forms of stalking have become somewhat normalised with emerging adults over recent years (Edwards and Gidycz, 2014; Ybarra, Langhinrichsen-Rohling & Mitchell, 2017). Furthermore, Langhinrichsen-Rohling, Palarea, Cohen and Rohling (2000) conducted a study that presented individuals with questionnaires that were different depending on whether they were the victim or the perpetrator of the stalking. They found that the perpetrators found the pursuit behaviours in a more positive light than the victims. In addition to this, the victims perceived the reason for the behaviours to be due to lack of friendship, when in fact it was positive interactions that lead to more unwanted pursuit behaviours.

The prevalence of post-relationship stalking is an extremely important factor to consider, as if this were a relatively rare phenomena then, it may not be necessary for it to be a heavily researched area. However, Lee and O'Sullivan (2014) found that from a sample of 271 emerging adults; 87.8% of recent breakups were characterised by post-relationship contact behaviours. This evidence seems to suggest that in general, contact after the dissolution of a relationship is common, especially in this population. However, Ybarra, Langhinrichsen-Rohling and Mitchell (2017) found that the prevalence may be much lower than that. After presenting adolescents with multiple surveys across two years, they recorded that only around 36% of individuals engaged in stalking like behaviours – much lower than the figures recorded by Lee and O'Sullivan (2014). The Crime Survey for England and Wales (2018) also attempts to record the prevalence of stalking behaviours. Interestingly, the figures shown on this survey are much lower than those shown in the previous studies. The prevalence

of stalking occurring to individuals aged between 16-59 is 15.3%, however, these are statistics relating to criminal offences and not all events of stalking behaviour will result in a criminal charge.

Interestingly, demographics have been shown to be increasingly important in prediction of stalking. Studies have shown that it is often middle aged, white males that have separated from a partner that are the most likely to perform stalking behaviours (Morrison, 2001). Interestingly, one of the major components that has also been shown to influence the likelihood of stalking behaviours is attachment style. Patton, Nobles and Talbot (2010), identified this as an area that needed to be analysed and interestingly, but maybe not surprisingly, the study found that stalkers scored higher on the insecure-anxious scale and lower on the insecure-avoidant scale. This is what we would expect to find as the individual is seeking the attention of the person that they direct the stalking behaviours towards and are often not ambivalent towards them. This has additionally been shown by Tonin (2004) who found that in those who had committed stalking offences, they often had overprotective fathers and had insecure adult attachment styles.

As the prevalence of post-relationship stalking has been shown to become more normalised over recent years (Edwards & Gidycz, 2014; Lee & O'Sullivan, 2014) there is an increased need for studies to look at which behaviours are becoming more normalised and if any behaviours remain to be perceived as unconventional. Research has been conducted into the distinction of when do pursuit behaviours become perceived as stalking behaviours. Purcell, Pathe and Mullen (2004) suggest that the 'watershed', as they coined it, was around 2 weeks

and after that the pursuit behaviours became more like stalking behaviours. Whilst making this distinction they concluded that the primary forms of short-term pursuit are phone calls, messages and intrusive approaches. However, the longer-term pursuit behaviours were described as more threatening stalking methods (under surveillance and loitering around the victim's house or work). Purcell, Moller, Flower and Mullen (2009) used court applications for restraining orders on young offenders and analysed which behaviours were most common and the reasoning behind the pursuit behaviours. They found that the most common forms of contact were direct, in person contact (76%) followed by phone calls and text messages (67%). The most common reasoning for this was an extension of bullying (28%), closely followed by rejection of advance (22%).

This current piece of research will draw from multiple areas of the research into stalking – mainly from Langhinrichsen-Rohling et al. (2000) and Lee and O'Sullivan (2014). Langhinrichsen-Rohling et al. (2000) asked participants whether they were the perpetrator or the victim of the stalking behaviours. This study will draw on that paradigm and similarly ask participants sets of questions relating to stalking behaviours and whether it was 'you' or 'they' who performed the specific behaviours. In addition to this, it is important to understand that as stalking research is relatively modern, the research must also respect the contemporary issues. So, as in Lee and O'Sullivan (2014), this current study will also split the stalking behaviours into online vs offline behaviours. This is extremely vital as certain demographics may influence the medium in which people perform their stalking behaviours. This research is also interested in which attachment styles are most likely to result in the stalking behaviours, and to ascertain if different attachment styles lead to different stalking behaviours.



### **Research questions:**

Q1. Do younger age groups (13-18) engage in more online stalking behaviour than emerging adults (18-25) and older adults (26+)?

Q2. Which stalking behaviours are most prevalent in the young people, emerging adults, compared to older adults?

Q3. Are there any differences between genders in the stalking behaviours shown across young people, emerging adults and older adults?

Q4. Are there any differences between ethnic groups with regards to stalking behaviours across young people, emerging adults and older adults?

Q5. Are there differences in stalking behaviours across the age groups due to differing attachment styles?

### **Methods**

#### **Participants:**

The aim is for the participants to be as diverse as possible. No one will be removed from the study at the start based solely on demographics, however, if there is a large skew with certain demographics then it will be considered that they are removed. However, individuals must have had experience of a breakup within the past two years to fulfil the sample criteria. A G power analysis was

conducted using the effect size relating to MacKenzie, Mullen, Ogloff, McEwan and James (2008) data. A sample size of approximately 151 will be needed to achieve valid results.

**Procedure:**

The study will be within-subjects, with each person completing every aspect of the questionnaire that they are presented with. During this questionnaire, they will answer questions based on demographics as well as behaviours shown by both themselves and their ex-partner after the dissolution of a previous relationship. Questionnaires may result in socially desirable answers; however, the majority of the previous research uses this paradigm to great effect (Burke, Wallen, Vail-Smith & Knox, 2011; Ybarra, Langhinrichsen-Rohling & Mitchell, 2017) so this current study will remain to use questionnaires.

JISC online surveys will be used to distribute and create the questionnaire. An application for the usage for JISC online surveys has been sent and permission has been granted so this is the medium that the questionnaire will be presented and distributed. All participants will be aware that they are answering a questionnaire regarding behaviours that occur post-relationship, however, 'stalking' itself will not be mentioned due to the need to avoid demand characteristics. After the conclusion of the study the participants will be informed of the aims of the study; the normalisation of the behaviours that can, in certain circumstances be classified as stalking behaviours. At this point they will receive the opportunity to discount any of the responses that they have given but will be reminded that all their answers will remain anonymous. Data collection will end when the necessary sample size is achieved, unless time does not permit the

sample size to be achieved. However, all necessary measures are in place to prevent this from happening.

### **Measures:**

The measures that are being used in this study are three questionnaires: a demographic questionnaire, an attachment style questionnaire and a post-relationship behaviour questionnaire. The demographic and post-relationship behaviour questionnaires have been created specifically for this study and are not taken from another research paper. However, some questions have been drawn from Lee and O'Sullivan (2014) (online vs offline behaviours) as well as Langhinrichsen-Rohling et al. (2000) (you vs them behaviours) as discussed above.

The demographic questionnaire will ask questions on the individuals age, gender, race etc. These will be used as measures in the analysis in order to predict the stalking behaviours that can occur post-relationship. The questionnaire specifically relating to the relationship and behaviours that can occur post-relationship has drawn from previous research (Langhinrichsen-Rohling et al., 2000; Lee & O'Sullivan, 2014). The questionnaire initially asks questions regarding the relationship itself (the latency, who ended it, the intensity of the breakup etc) and individuals may be excluded if the latency of the break up is not within the past two years. After this the questions will relate more specifically to the behaviours shown post relationship relating to contact with the other individual. Individuals will be given examples of behaviours that can occur after the dissolution of a relationship and they will be asked to answer 'Yes' or 'No', as to whether they have participated in these behaviours. In addition to this, they will

also be asked if their ex-partner participated in any of these behaviours. Specific behaviours have been categorised into 'Online' vs 'Offline' behaviours, for example, an online behaviour will be 'posting on social media about you/them'.

An attachment style questionnaire will also be used. This is the Relationship Scales Questionnaire (RSQ) by Griffin and Bartholomew (1994). This is a 30-item questionnaire that will identify the individual's attachment style and enabling us to test our hypotheses.

### **Analytical methods**

SPSS will be used to analyse the data received from the questionnaire. A priori analyses will be run on the sample size to determine whether any groups of individuals may need to be removed due to the skew. After this a series of ANOVAs will be completed analysing the specific demographics against the stalking behaviours. After these ANOVAs have been conducted a regression analysis will be conducted using the statistically significant data to determine how much variance each measure accounts for, facilitating predicting which individuals will be more likely to resort to stalking behaviours.

## References:

- Burke, S.C., Wallen, M., Vail-Smith, K., & Knox, M. (2011). Using technology to control intimate partners: An exploratory study of college undergraduates. *Computers in Human Behaviour, 27*, 1162-1167.
- Edwards, K.M., & Gidycz, C.A. (2014). Stalking and Psychosocial Distress Following the Termination of an Abusive Dating Relationship: A Prospective Analysis. *Violence Against Women, 20*(11), 1383-1397.
- Griffin, D. W., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology, 67*(3), 430-445.
- Haugaard, J.J., & Seri, L.G. (2003). Stalking and Other Forms of Intrusive Contact After the Dissolution of Adolescent Dating or Romantic Relationships. *Violence and Victims, 18*(3), 279-297.
- Korkodeilou, J. (2016). 'No place to hide': Stalking victimisation and its psycho-social effects. *International Review of Victimology, 23*(1), 17-32.
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# Ethics approval letter



**University of  
Nottingham**  
UK | CHINA | MALAYSIA

**Faculty of Medicine & Health Sciences  
Research Ethics Committee**

Faculty Hub  
Room E41, E Floor, Medical School  
Queen's Medical Centre Campus  
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Email: [FMHS-ResearchEthics@nottingham.ac.uk](mailto:FMHS-ResearchEthics@nottingham.ac.uk)

10 March 2020

**Mr Tom Arnold**

MSc Student, Forensic and Criminological Psychology  
c/o Professor Kevin Browne, Director  
Centre for Forensic and Family Psychology  
YANG Fujia Building  
Jubilee Campus  
Wollaton Road  
Nottingham  
NG8 1BB

Dear Mr Arnold

<b>Ethics Reference No:</b> 469-2001 – please always quote	
<b>Study Title:</b> Post-Relationship stalking: Is attachment style the most important factor in predicting stalking behaviours.	
<b>Chief Investigator/Supervisor:</b> Professor Kevin Browne, Director, Centre for Forensic & Family Psychology.	
<b>Lead Investigators/student:</b> Tom Arnold, MSc Student, Forensic and Criminological Psychology, School of Medicine	
<b>Other Key investigators:</b> Dr Elizabeth Paddock, Assistant Professor in Forensic Psychology, Centre for Forensic & Family Psychology, School of Medicine.	
<b>Proposed Start Date:</b> 01/03/2020	<b>Proposed End Date:</b> 31/05/2020

Thank you for submitting the above application and the following documents were received:

- FMHS REC Application form and supporting documents version 1.0: 10/01/2020

These have been reviewed and are satisfactory and the project has been given a favourable opinion.

A favourable opinion has been given on the understanding that:

1. The protocol agreed is followed and the Committee is informed of any changes using a notice of amendment form (please request a form).
2. The Chair is informed of any serious or unexpected event.
3. An End of Project Progress Report is completed and returned when the study has finished (Please request a form).

Yours sincerely

**Dr John Williams, Associate Professor in Anaesthesia and Pain Medicine**  
Chair, Faculty of Medicine & Health Sciences Research Ethics Committee



## **Executive summary**

This piece of research is aimed at charities who aim to educate individuals around the dangers of stalking. Charities such as the National Stalking Helpline help raise awareness around stalking and this piece of research can help identify those individuals who may be high at risk of exhibiting stalking behaviours. In addition to this it may be used to assist professionals working with individuals convicted of stalking offences, with the results from attachment scores will be most important. These results can help assist targeting individuals who have potentially experienced adverse childhoods and possess maladaptive attachment styles that may require interventions.

### **Background**

Stalking is a relatively new phenomena, having only been enshrined into law as a crime by the Protection from Harassment Act (1997), so it has been a heavily researched area in recent years. The research has focused on the risk factors that may influence the behaviours shown, this can either be relating to the qualities of the victim or the perpetrator of the crime. Evidence has shown that stalking may be a gendered crime; with perpetrators, often being male and victims often being female (Sheridan & Lyndon, 2012). Age has also been shown to be a risk factor for stalking, Sheridan, North and Scott (2014) found that younger individuals will often stalk within their own age group and rarely strangers, whereas older individuals were more likely to stalk ex-partners.

Further risk factors include education, race and attachment style; these factors have the potential to increase the risk of stalking behaviours being shown by an individual.

Increasing the knowledge around the area of stalking, especially post-relationship is vital in order to protect individuals from being victimised. Post-relationship stalking is the most common form of stalking behaviours that occurs and is often an attempt to reform the relationship (Lee & O'Sullivan, 2014). It is when the behaviours are present for a prolonged period of time, some suggesting two weeks as the 'watershed', that the behaviours may be described as stalking, thus become criminal behaviour.

In addition to this there was a distinction made between the different types of stalking behaviours. Lee and O'Sullivan (2014) distinguished between online behaviours against offline behaviours – this current piece of research replicates this, however, uses different behaviours. Whilst distinguishing between online and offline behaviours, this study also distinguished between the individual completing the questionnaire and their ex partner, as well as before the break up and after the break up.

The current piece of research aims to improve and adapt upon previous research; creating a much more inclusive report on which risk

factors are most important in predicting stalking behaviours. The main focuses of the research are attachment style, age and gender. It is predicted that younger people will engage, not only in more stalking-like behaviours but more online behaviours.

### **Data collection and analysis**

Data was collected via the use of an online questionnaire; JISC online surveys was the selected website due to availability at the University. Individuals from all demographics accepted, so that a broad number of demographics could be analysed; a total of 188 participants was achieved. Participants were then split into three separate age groups (17-20, 21-24 & 25+). Each participant was to complete three questionnaires: A simple demographics questionnaire, a post-relationship contact questionnaire and an attachment questionnaire. The post-relationship contact questionnaire was specifically made for this piece of research and contained 11 online behaviours and 15 offline behaviours.

The data was analysed using IBM SPSS v.26. Multiple multivariate regressions were conducted, comparing the scores for the behaviours shown (Both online vs offline) against the demographics of the individuals. In addition to the regressions that were conducted, multiple one way ANOVAs were conducted to test which behaviours were most prevalent across all three age groups.

## **Key findings**

The multivariate regression concerning online and offline behaviours, found a significant difference in the behaviours shown across the age groups: the youngest individuals displayed more online behaviours than older individuals. Further regressions showed that there was no difference between males and females in the amount of behaviours shown. In addition, the scores on the attachment questionnaire were also shown to not influence the amount of behaviours shown by the individuals. Furthermore, analysis on race could not be conducted due to not having enough variety in the sample size.

The multiple one way ANOVAs were conducted to assess the difference in behaviours shown across the age groups. The 17-20 year olds were more likely to send apologetic messages, go out of their way to see their partner and go to their partners' house to see them than 25+ before the break-up. After the break-up they were also more likely to check their ex-partners location via the use of apps (Snapchat/Find my friends). Similarly, the 21-24 group went out of their way to see them, went to their house to see them and attempted to find out partners' location more than the 25+ group before the break-up. However, the oldest age group (25+) were more likely to look through their partners' belongings than the youngest age group (17-20).

## **Implications and recommendations**

The results of this study suggest that there is an increased need for education, especially for younger individuals, surrounding relationships and their dissolution. Education can provide individuals with specific coping strategies if, and when a relationship ends. Some post-relationship contact behaviours post break-up is relatively common and is due to an individual attempting to restart the relationship, however it is when these behaviours are present for a long period of time that problems arise. If the education is provided from an early age then the likelihood of the behaviours being present in later life is much lower.

Furthermore, there is the possibility that stalking may not necessarily be a gendered crime. There was no evidence found to suggest that men stalk more than women, which has been previously suggested (Sheridan & Lyndon, 2012). However, the sample contained a much larger amount of women which may in turn influence the results of the analysis. Future studies should attempt to replicate this piece of research, however, should ensure that the sample is weighted equally with all demographics.

In addition to this research could attempt to analyse the moods and mind frames of the individuals at the time that the contact behaviours occur. Mood has previously been shown to have an important impact on

behaviours (Gendolla, 2000), there is the potential for this to affect stalking behaviours in a similar way.

**Word count: 952**

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**Risk factors between online and offline methods of post-  
relationship contact**

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U7PFCPSY: MSc in Forensic & Criminological Psychology

Dr Vincent Egan

Due date: 6<sup>th</sup> July 2020

Journal: International Journal of Cyber Criminology

Word count: 6000



## **Abstract**

Relationships are about dependence on another individual, this dependence can differ from relationship to relationship. However, it is the dissolution of the relationship where problems can arise concerning Post-Relationship Contact Behaviours (PRCBs). As technology has become more affluent, the means in which PRCBs can occur have increased, online forms of contact are the most common form of contact post-relationship. A total of 188 participants completed three questionnaires: Demographics, Post-relationship contact and an attachment questionnaire. Interestingly, 100% of all previous relationships consisted of some form of PRCBs, however, the severity of these behaviours had a wide range. The most common behaviours were: looking at social media page (77.5%) and sending personal (56%) or apologetic messages (46.1%). Age was found to be an increasingly important factor for which behaviours occurred; with younger individuals participating in more online behaviours. Implications for interventions and future research are discussed further.

## **Introduction:**

Stalking is a new area of research in terms of psychology – stalking was only defined as a crime due to The Protection From Harassment Act (1997). Only after this law was created was it possible for a person to be convicted for behaviours that are defined as stalking behaviours. Stalking can be defined as a pattern of persistent pursuit behaviours often directed towards a single individual occurring on several occasions over a large period of time (Roberts, 2002). Purcell, Pathe and Mullen (2004) add to this and suggest that the behaviours relating to

instances of stalking are extremely diverse and these behaviours are intrusive to the victim and can impact a victims' functioning in everyday life.

### **Prevalence:**

Stalking can occur for multiple reasons: prior to, during and after relationships, as well as stranger stalking (Korkodeilou, 2016). This current piece of research is interested in the stalking behaviours elicited post-relationship. Haugaard & Seri (2003) assessed the prevalence of stalking behaviours in undergraduate students – it was found that around 20% had been the victim of unwanted pursuit behaviours and 8% had initiated them. However, Lee and O'Sullivan (2014) conducted a study that focused on emerging adults (18-25 year olds) and analysed the behaviours shown after the dissolution of the romantic relationship. PRCBs were found in 87.8% of the breakups; with both online and offline forms used in conjunction and rarely alone. Further evidence suggests that stalking is prevalent post relationships and certain forms of stalking have become somewhat normalised with emerging adults (Edwards and Gidycz, 2014; Ybarra, Langhinrichsen-Rohling & Mitchell, 2017). Furthermore, Langhinrichsen-Rohling, Palarea, Cohen and Rohling (2000) conducted a study that presented individuals with questionnaires dependent on whether they were the victim or the perpetrator of stalking. They found that the perpetrators framed the pursuit behaviours in a more positive light than the victims, the victims perceived the reason for the behaviours to be due to lack of friendship, when in fact it was positive interactions that lead to more unwanted pursuit behaviours.

The prevalence of post-relationship stalking is an important factor to consider; Lee and O'Sullivan (2014) found that from a sample of 271 emerging

adults; 87.8% of recent breakups were characterised by PRCBs. This evidence seems to suggest that contact after the dissolution of a relationship is common, especially in this population. However, Ybarra, Langhinrichsen-Rohling and Mitchell (2017) found that the prevalence may be much lower than that. After presenting adolescents with multiple surveys across two years, they recorded that only around 36% of individuals engaged in stalking like behaviours. The Crime Survey for England and Wales (2018) also attempts to record the prevalence of stalking behaviours. The prevalence of stalking occurring to individuals aged between 16-59 is 15.3%, however, these are statistics relating to criminal offences and not all events of stalking behaviour will result in a criminal charge.

## **Demographics:**

### **Age:**

There is a gap in the literature regarding a comprehensive comparison of age, and its relationship with stalking perpetuation. A study conducted by Nobles, Fox, Piquero and Piquero (2009) analysed the onset of both stalking perpetration and victimisation – researching at what ages the first instance of stalking occurred. They found that most instances of stalking occurred in emerging adults with a mean age of 20 for both perpetration and victimisation; nevertheless, there was no difference in the onset between genders. This evidence was further supported by Sheridan, Scott and North (2014) – they compared three age groups (16 and under, 17-59 and 60+) and showed that the victim group of the younger individuals was often of a similar age, sometimes older (teachers etc), but rarely a stranger to the individuals. Whereas, the middling age group tended to be most likely to stalk ex-partners, and the older group often targeted younger ages.

Evidence was found to support the assertion that stalkers victims are generally younger than the individual conducting the stalking.

### **Gender:**

Gender is perhaps the most researched of the demographics chosen; it has been found by multiple studies that perpetrators are mostly male and victims are mostly female (Nicastro, Cousins & Spitzberg, 2000; Sheridan & Lyndon, 2012). Whilst the makeup of the perpetrators and victims may be accepted as a concrete truth, it is with regards to the perceptions of stalking that the research yields interesting results. Dunlap, Hodell, Golding, Wasarhaley (2012) researched participants verdicts as mock jurors when the gender of victim and defendant were manipulated. Interestingly, men were found to render less guilty verdicts than women, especially in the cases that are synonymous with the prototypical stalking (Male perpetrator, female victim).

### **Race:**

Interestingly, demographics have been shown to be increasingly important in prediction of stalking. Studies have shown that it is often middle aged, white males that have separated from a partner that are the most likely to perform stalking behaviours (Morrison, 2001). In a more recent study by Duff, Hay, Kerry and Whittam (2020) evidence was found to suggest that the race of both the perpetrator and the victim influence the interpretation of stalking behaviours – intra-racial behaviour was considered more likely to be stalking, as well as female to male behaviour being regarded as more stalking-like. In conjunction with this evidence, Engelbrecht and Reyns (2011) found that non-white individuals were more likely to label experiences as stalking.

**Attachment:**

Attachment theory was developed by Bowlby (1969) and this theory suggested that in early life individuals form attachments to their primary caregiver (often their mother) and this impacts upon how relationships are formed in later life. Attachment style has been shown to be a large risk factor in the majority of criminal behaviours (Hoeve, Stams, Van der Put, Dubas, Van der Laan, & Gerris, 2012); this has also been shown to be alike in instances of stalking. Patton, Nobles and Fox (2010), identified this as an area that needed to be analysed and interestingly, the study found that stalkers scored higher on the insecure-anxious scale and lower on the insecure-avoidant scale. This is what we would expect to find as the individual is seeking the attention of the person that they direct the stalking behaviours towards and are often not ambivalent towards them. This has additionally been shown by Tonin (2004) who found that in those who had committed stalking offences, they often had overprotective fathers and had insecure adult attachment styles.

As previous studies found, increased attachment anxiety resulted in a higher chance of stalking behaviours being present; moreover, fewer dating experiences acting as a protective factor for stalking behaviours, implying that stalking may potentially be a learned response (Yoo, Lee & Lee, (2016). Additional factors have been suggested that may mediate the probability of stalking like behaviours occurring; Davis, Ace and Andra (2000), found that higher levels of anger or resentment over the breakup of a relationship will mediate stalking behaviours.

Wilson, Ermshar & Welsh (2006) presents an interesting idea that as stalking is comprised of an incredibly diverse set of behaviours, they are accounted for by both attachment styles and psychodynamic phenomena. For example, they identify an area that they define as "hungry ghosts"; these are often the stalkers who participate in obsessional stalking, often only having one victim, and this in turn related to preoccupied attachment styles. This study can be used in order to explain the idiosyncrasies across stalking behaviours and help categorise individuals into groups, which helps with identification and treatment. It is important to recognise that stalking behaviours are not solely prototypical and a wide range of behaviours are encompassed in what is defined as stalking.

### **Normalisation of stalking behaviours:**

As the prevalence of post-relationship stalking has been shown to become more normalised over recent years (Edwards & Gidycz, 2014; Lee & O'Sullivan, 2014) there is an increased need for studies to look at which behaviours are becoming normalised and if any behaviours remain to be perceived as unconventional. Research has been conducted into the distinction of when do pursuit behaviours become perceived as stalking behaviours. Purcell, Pathe and Mullen (2004) suggest that the 'watershed' (P. 1) was around 2 weeks and after that the pursuit behaviours became more like stalking behaviours. Whilst making this distinction they concluded that the primary forms of short-term pursuit are phone calls, messages and intrusive approaches. However, the longer-term pursuit behaviours were described as more threatening stalking methods (under surveillance and loitering around the victim's house or work). Purcell, Moller, Flower and Mullen (2009) used court applications for restraining orders on young offenders and analysed which behaviours were most common and the reasoning

behind the pursuit behaviours. They found that the most common forms of contact were direct, in person contact (76%) followed by phone calls and text messages (67%). The most common reasoning for this was an extension of bullying (28%), closely followed by rejection of advance (22%).

### **Hypotheses:**

This research paper draws from multiple areas of the stalking literature as it is attempting to provide a full overview of which demographics increase the risk factors of committing stalking offences. The hypotheses are presented below and take inspiration from Langhinrichsen-Rohling et al. (2000) and Lee and O’Sullivan (2014). This study will combine paradigms from both studies, adapting and improving the methodology. Firstly, the study distinguishes between online and offline behaviours; as technology advances, so does the means in which stalking can occur. The aforementioned studies present the questions asking the participants if it was them or their partner who had displayed the behaviours. Additionally, as a multitude of studies have suggested that attachment styles may influence stalking behaviours, this study, with its new and improved paradigm, will attempt to identify whether the differing attachment styles will demonstrate alternative stalking behaviours and if these can be separated into groups. The hypotheses for the current study are presented below:

**H1.** Do younger age groups (13-18) engage in more online stalking behaviour than emerging adults (18-25) and older adults (26+)?

**H2.** Which stalking behaviours are most prevalent in the young people, emerging adults, compared to older adults?

**H3.** Are there any differences between genders in the stalking behaviours shown across young people, emerging adults and older adults?

**H4.** Are there any differences between ethnic groups with regards to stalking behaviours across young people, emerging adults and older adults?

**H5.** Are there differences in stalking behaviours across the age groups due to differing attachment styles?

**H6.** Do people report more instances of being a victim of stalking than reporting perpetrating stalking behaviours?

## **Method**

### **Design**

The present study was conducted using a 2x2x2 within-subjects design. There were two independent variables that were controlled, each with two levels: Perspective (You vs ex-partner), occurrence of the behaviours (Before vs after break-up) and medium (Online vs Offline). With the key dependent variable being behaviours that are known in examples of stalking; there are additional dependent variables in the study regarding the frequency of the stalking behaviours. In addition to the 2x2x2 design, additional independent variables in the form of demographics of the participants were also considered. Along with further dependent variables surrounding the information surrounding the relationship: For



example, the length of the relationship and the immediacy of it were some of the factors that were also measured.

## **Participants**

Participants were recruited using volunteer sampling methods. The questionnaire was distributed via the medium of social media websites; Facebook, Twitter and LinkedIn were the three that were primarily used to recruit the participants. A G power analysis was completed to ascertain the number of participants needed to achieve suitable power. MacKenzie, Mullen, Ogloff, McEwan and James (2008) data was used to calculate the sample size and approximately 151 will be needed to achieve valid results. Overall, 191 participants completed the questionnaire; three were removed due to failure to comply with the questionnaire instructions. These participants were split into three age groups: 13-18, 18-24 and 25+; the means and standard deviations for these are presented in Table 1.

**Table 1**

Frequencies, means and standard deviations for age groups

	<b>17-20</b>	<b>21-24</b>	<b>25+ (25-50)</b>
<b>Frequency</b>	35	105	26
<b>Mean</b>	19.6	22.2	32.3
<b>Standard deviation</b>	0.69	1.01	7.44

## **Procedure:**

Whilst questionnaires may result in socially desirable answers; most of the previous research uses this paradigm to great effect (Burke, Wallen, Vail-Smith &

Knox, 2011; Ybarra, Langhinrichsen-Rohling & Mitchell, 2017) - so this current study will remain to use questionnaires. During this study, participants will answer questions from three questionnaires:

- 1)** Simple demographics questionnaire
- 2)** Stalking behaviour questionnaire
- 3)** Attachment questionnaire (Relationship Scales Questionnaire (RSQ), Griffin & Bartholomew, 1994).

JISC online surveys was used to distribute and create the questionnaire. JISC online surveys is the medium that the questionnaire will be presented and distributed.

The demographic and post-relationship behaviour questionnaire questionnaires have been created specifically for this study and are not taken from another research paper. However, some questions have been drawn from Lee and O'Sullivan (2014) (online vs offline behaviours) as well as Langhinrichsen-Rohling et al. (2000) (you vs them behaviours) as discussed above. The demographic questionnaire will ask questions on the individuals age, gender, race etc. These will be used as measures in the analysis to predict the stalking behaviours that can occur post-relationship. The questionnaire specifically relating to the relationship and behaviours that can occur post-relationship has drawn from previous research (Langhinrichsen-Rohling et al., 2000; Lee & O'Sullivan, 2014).

### **Demographics questionnaire**

The Demographics section has nine questions that solely relate to the characteristics of the individual participating in the study. These questions relate to factors such as age, sex and race – for the full list of questions asked, see appendix A. Participants were asked to provide as much information as possible, and were given the opportunity to withhold any information should they not want to share.

### **Stalking behaviours questionnaires**

The stalking behaviour questionnaire was the most extensive section of the questionnaires with 108 questions with 104 potentially requiring a second answer. There were four questions at the start that concerned the factors surrounding the relationship (Longevity, recency of the relationship etc.) The further sections of the questionnaire would in turn be split up into four explicit sections:

- 1)** Your behaviour before the break-up.
- 2)** Their behaviour before the break-up.
- 3)** Your behaviour after the break-up.
- 4)** Their behaviour after the break-up.

Each of these sections would also have the online and offline PRCBs embedded inside without the participants' knowledge that there was a distinction. At the start of each section, the participant was to be reminded whose behaviour and the instance in which the behaviour occurred, and subsequently asked did you/they display any of these behaviours? An example of questions asked regarding OFFLINE BEHAVIOURS is "Contacted their family members" *and an example of ONLINE BEHAVIOURS* is "Posted on your social media about them."

Each of these questions would be presented as a YES/NO answer, if the participant answers YES to the question then they were asked to rate the frequency of this behaviour on a 1-5 scale; *1 being only once* and *5 being multiple times a day* (For the full questionnaire see appendix B).

All participants will be aware that they are answering a questionnaire regarding behaviours that occur post-relationship, however, 'stalking' itself was not mentioned due to the need to avoid demand characteristics. It is important to note that there are 26 stalking-like behaviours encompassing the questionnaire, however these would be repeated across the four sections resulting in a total of 104 questions.

### **Relationship Scales Questionnaire (RSQ; Griffin & Bartholomew, 1994)**

The Relationship Scales Questionnaire (RSQ) by Griffin and Bartholomew (1994) is adapted from three other attachment style questionnaires (Hazan & Shaver, 1987; Collins & Read, 1990; Bartholomew & Horowitz, 1991) This is a 30-item questionnaire that will identify the individual's attachment style and enabling us to test our hypotheses. Each item is rated on a 5 point Likert scale and there are five questions relating to secure and dismissing attachment styles, four items for fearful and preoccupied attachment styles. The overall score for each attachment style is derived by taking the average of each set of items relating to the corresponding attachment style (See appendix C).

After the conclusion of the study the participants were informed of the aims of the study; the normalisation of the behaviours that can, in certain

circumstances be classified as stalking behaviours. At this point they received the opportunity to discount any of the responses that they have given but were reminded that all their answers would remain anonymous.

## **Results**

The frequencies and the percentages for the demographics of the individuals completing the questionnaire are in Table 2. The frequencies for the answers given to questions relating to the individual completing the questionnaire are presented in Tables 3 & 4. Table 3 represents answers for online behaviours and Table 4 represents answers for offline.

**Table 2**

Frequencies and percentages for the demographics of individuals completing the questionnaire.

<b>Demographics</b>	<b>Answer</b>	<b>N</b>	<b>Percentage (%)</b>
Sex:	Male	36	20.3
	Female	141	79.7
Sexuality: - Straight/Heterosexual	Straight/Heterosexual	155	82.4
	Homosexual/Lesbian	8	4.3
	Bisexual	23	12.2
	Other	2	1.1
Ethnicity:	White	168	89.4
	Mixed/Multiple Ethnic groups	5	2.7
	Asian	14	7.4
	Black	1	0.5
	Other	0	0.0
Education	Some secondary school	0	0.0
	Secondary school	7	3.7
	College/Sixth form	9	4.8
	Undergraduate degree	127	67.9
	Postgraduate degree	44	23.5
Relationship status:	Single	84	44.9
	In a relationship	93	49.7
	Married	8	4.3
	Divorced	1	0.5
	Civil partnership	1	0.5
	Prefer not to say	0	0.0
Employment:	Employed full-time	69	37.7
	Employed part-time	55	30.1
	Seeking opportunities	43	23.5
	Retired	0	0.0
	Prefer not to say	16	8.7
Family - How many children do you have?:	0	171	92.4
	1	10	5.4
	2-4	4	2.2
	4+	0	0.0
	Prefer not to say	0	0.0
Religion:	Christianity	44	23.7
	Judaism	1	0.5
	Islam	4	2.2
	Buddhism	3	1.6
	Hinduism	2	1.1
	Atheist	99	53.2
	Other	23	12.4
	Prefer not to say	10	5.4

**Table 3**

Frequencies and percentages for online behaviours both before the relationship and after the relationship break-up.

<b>ONLINE</b>					
		<b>Before</b>		<b>After</b>	
<b>Behaviour</b>	<b>Answer</b>	<b>N</b>	<b>Percentage (%)</b>	<b>N</b>	<b>Percentage (%)</b>
Send messages online of affection	Yes	160	85.1	50	26.6
	No	28	14.9	138	73.4
Send personal messages	Yes	176	93.6	104	55.3
	No	12	6.3	84	44.7
Send threatening messages	Yes	5	2.7	4	2.1
	No	183	97.3	184	97.9
Send apologetic messages	Yes	116	62	86	45.7
	No	71	38	102	54.3
Send sexual messages	Yes	119	63.6	21	11.2
	No	68	36.4	167	88.8
Look at any of their social media pages	Yes	155	82.9	146	77.7
	No	32	17.1	42	22.3
Posted on your social media about them	Yes	88	46.8	10	5.3
	No	100	53.2	177	94.7
Gain access to any forms of their social media	Yes	23	12.2	8	4.3
	No	165	87.8	180	85.7
Attempt to find out their location	Yes	59	31.4	50	26.6
	No	129	68.6	138	73.4
Used spyware	Yes	0	0	0	0
	No	188	100	188	100
Look for them on dating websites?	Yes	11	5.9	25	13.3
	No	177	94.1	163	86.7

**Table 4**

Frequencies and percentages for offline behaviours both before the relationship and after the relationship break-up

<b>OFFLINE</b>					
<b>Behaviour</b>	<b>Before</b>			<b>After</b>	
	<b>Answer</b>	<b>N</b>	<b>Percentage (%)</b>	<b>N</b>	<b>Percentage</b>
Went out of your way to see them	Yes	123	65.4	25	13.3
	No	65	34.6	163	86.7
Followed them without their knowledge	Yes	1	0.5	0	0.0
	No	187	99.5	188	100.0
Wrote them letters	Yes	39	20.7	17	9.0
	No	149	79.3	171	91.0
Sent them presents of affection	Yes	90	47.9	4	2.1
	No	98	52.1	184	97.9
Went to their house to see them	Yes	152	80.9	36	19.1
	No	36	19.1	152	80.9
Went to their place of work to see them	Yes	32	17.0	5	2.7
	No	156	83.0	183	97.3
Went through their personal belongings	Yes	33	17.6	3	1.6
	No	155	82.4	185	98.4
Rang them persistently	Yes	26	13.8	10	5.3
	No	162	86.2	178	94.7
Attempted to slander their reputation	Yes	6	3.2	20	10.6
	No	182	96.8	168	89.4
Asked their friends about them	Yes	69	36.7	59	31.6
	No	119	63.3	128	68.4
Contacted their family members	Yes	40	21.4	27	14.4
	No	147	78.6	161	85.6
Broke something of theirs on purpose	Yes	6	3.2	3	1.6
	No	182	96.8	184	98.4
Threatened them	Yes	4	2.1	5	2.7
	No	184	97.9	183	97.3
Threatened to hurt yourself	Yes	7	3.7	4	2.1
	No	181	96.3	183	97.9
Hurt them (Emotionally/physically)	Yes	37	19.7	29	15.5
	No	151	80.3	158	84.5
Took pictures of them without their consent	Yes	6	3.2	0	0.0
	No	182	96.8	188	100.0



## H1.

This hypothesis concerned the participants age and how this may influence the medium in which individuals conduct PRCBs. The means and standard deviations are presented in Table 5.

**Table 5**

Sample size, means and standard deviations for online and offline behaviours.

<b>Descriptive Statistics</b>	Age:	N	Mean	Std. Deviation
MEANONLINE	17-20	34	10.1	3.63
	21-24	118	9.03	3.44
	25+	34	7.52	4.86
MEANOFFLINE	17-20	34	5.54	3.3
	21-24	118	4.83	3.04
	25+	34	5.13	5.3

A multivariate regression was conducted to test if age influences the medium in which PRCBs are shown. The analysis showed a significant difference for the medium based on age ( $F(4,364) = 3.13, p = .015$ ). The test of between subjects showed that the effect of age on online behaviours was significant ( $F(2,183) = 4.04, p = .02$ ) with an  $R^2 = .042$  whereas the effect of age on offline behaviours was insignificant ( $F(2,183) = .533, p = .59$ ) with an  $R^2 = .006$ .

Post hoc analysis using the Tukey HSD test, indicated that the scores for 17-20 ( $M = 10.1, SD = 3.63$ ) was significantly higher than the 25+ scores ( $M = 7.52, SD = 4.86$ ). However the 21-24 scores ( $M = 9.03, SD = 3.44$ ) did not differ from either the 17-20 or the 25+ age groups (See figure 1).

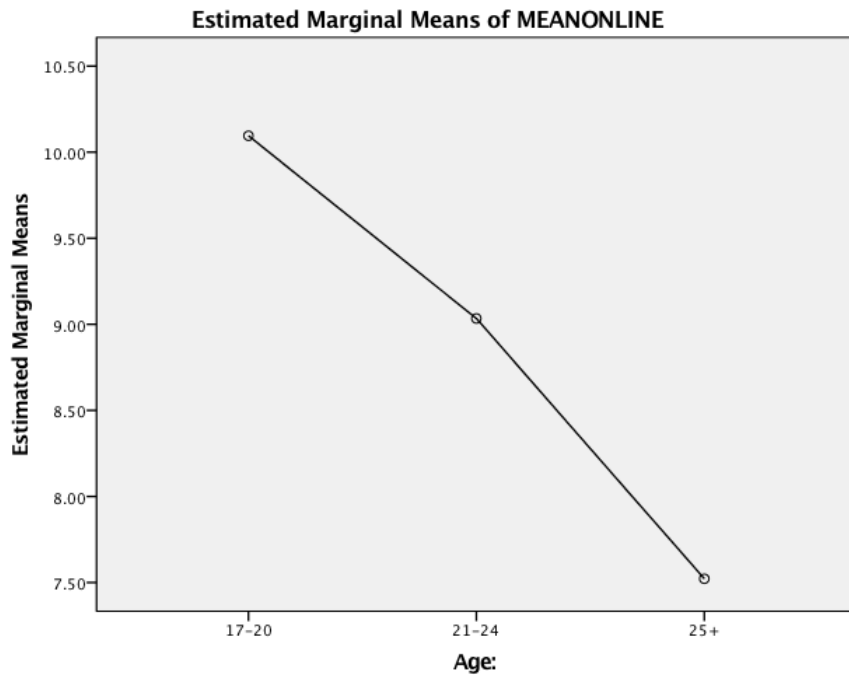


Figure 1: Mean scores for each age for online PRCBs

## H2.

Multiple one way ANOVAs were conducted to investigate which behaviours are most common in each individual age group.

### ***Before the break-up online***

There was a significant difference found between the age groups regarding the questions "Did you send apologetic messages?" ( $F(2,183) = 3.6, p = .029$ ). 17-20 year olds ( $M=1.15, SD = 1.44$ ) showed more of these behaviours than the 25+ age group ( $M=.32, SD = .912, p= .01$ ); however, there was no significant difference with 17-20 and the 21-24 age group ( $M= .67, SD= 1.12, p=.086$ ), nor the 21-24 and the 25+ age group ( $p=.272$ ).

The question "Did you attempt to find out their location with the use of apps? (Such as snapchat/find my friends)." also yielded significant results ( $F(2,183) = 4.43, p = .013$ ). 21-24 year olds ( $M=1.23, SD=1.09$ ) showed significantly more instances of this behaviour than the 25+ age group ( $M=.68, SD=1.11, p= .024$ ) but not more than 17-20 year olds ( $M=1.21, SD= .98, p=.993$ ). In addition the 17-20 year group did not differ from the 25+ age group ( $P= .11$ ).

### ***Before the break-up offline***

There was also a significant difference between age groups concerning question "Went out of your way to see them" ( $F(2,183) = 9.3, p > .001$ ). 17-20 year olds ( $M=1.41, SD=1.05$ ) and 21-24 ( $M=1.62, SD=1.2$ ) displayed this behaviour more than the 25+ group ( $M=.65, SD=1.13, p = .019; p > ,001$ ); however 17-20 did not differ from the 21-24 age group ( $p= .63$ ).

A significant difference was found for the question "Went to their house to see them" ( $F(2,183) = 6.42, p = .002$ ). 17-20 ( $M= 2.24, SD = .89$ ) and 21-24 year olds ( $M=1.94, SD = 1.14$ ) showed this behaviour significantly more than the 25+ group ( $M= 1.29, SD = 1.3, p = .002; p= .01$ ). However, the 17-20 and 21-24 ages did not differ ( $p = .375$ ).

Another significant difference was for the question "Went through their personal belongings" ( $F(2,183) = 5.54, p = .005$ ). The 25+ age group ( $M = .47, SD = .788$ ) showed more instances of this behaviour than the 17-20 group ( $M=$

.03 SD = .171,  $p = .003$ ) but not the 21-24 group ( $M = .24$ ,  $SD = .534$ ,  $p = .076$ ). There was no difference between 17-20 and the 21-24 age groups ( $p = .127$ )

### ***After the break-up online***

There was a significant difference for the question "Did you attempt to find out their location with the use of apps? (Such as snapchat/find my friends)." ( $F(2,183) = 3.8$ ,  $p = .024$ ). 17-20 year olds ( $M=.85$ ,  $SD = 1.4$ ) showed more instances of this behaviour than the 25+ group ( $M = .15$ ,  $SD = .5$ ,  $p = .018$ ), but not the 21-24 group ( $M = .54$ ,  $SD = 1.07$   $p = .29$ ). There was no difference between the 21-24 and 25+ age groups ( $p = .137$ )

### ***After the break-up offline***

A significant difference for the question "Went out of their way to see them" was found ( $F(2,183) = 3.39$ ,  $p = .036$ ). However, Levene's test of variance was found to be significant so equal variances could not be assumed; therefore, a Tamhane T2 test was conducted instead of a Tukey test. The 21-24 age group ( $M= .25$ ,  $SD = .602$ ) was found to exhibit significantly more of this behaviour than 25+ group ( $M = .03$ ,  $SD = .171$   $p = .001$ ) but not to the 17-20 group ( $M = .09$ ,  $SD = .288$ ,  $p = .079$ ). The 17-20 group did not differ from the 25+ ( $p = .672$ )

### **H3.**

This piece of analysis concerns how stalking behaviours may differ across the genders across the age groups. A multivariate multiple regression was conducted into the effects of gender across the three age groups. The analysis showed that there was a significant effect of age ( $F(16,326) = 1.69$ ,  $p = .046$ ),

however there was not an effect of gender ( $F(8,163) = 1.77, p = .087$ ). When both age and gender were analysed there was no further significance ( $F(16,326) = 1.27, p = .213$ ).

Between subjects tests showed that the for age, there was a significant effect in the You (Perspective), after (Time), offline (Medium) scores ( $F(2,170) = 3.41, p = .035$ )  $R^2 = .085$  (See figure 2) . The 25+ age group exhibited more offline behaviours after the break-up of the relationship. No further comparisons were conducted as the effects were insignificant.

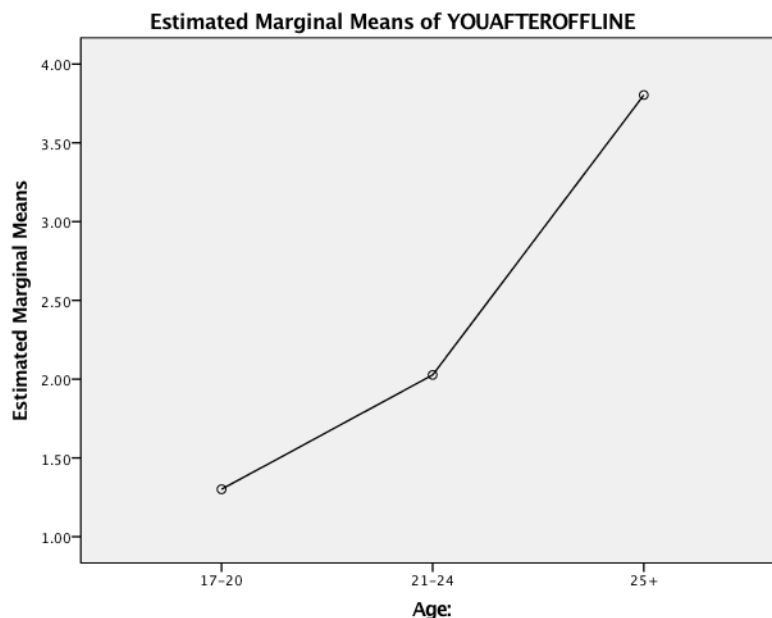


Figure 2: Mean scores for different ages in the You, after, score set.

#### H4.

Analyses could not be performed due to a heavily skewed sample size (See Table 2).

## H5.

**Table 6**

The means and score ranges for each individual attachment style – the higher score the more behaviours related to the style is present.

<b>Attachment score</b>	N	Minimum score	Maximum score	Mean	Std. Deviation
SECURE	186	1.2	4.6	3.12	.7
FEARFUL	186	1	4.75	2.89	.89
PREOCCUPIED	186	1.5	4.5	2.87	.59
DISMISSING	186	1.6	5	3.25	.69

A multiple regression was carried out to ascertain whether the scores derived from the Relationship Scales Questionnaire impacted upon the presentation of PRCBs, in addition age was added to the second model to determine if this would result in a significant outcome. Model 1 investigated whether the four individual attachment style scores could be used to predict the amount of PRCBs shown by the individual. The results showed that model 1 accounted for 2% of the variance and that this was not significant with ( $F(4,179) = .934, p = .446$ ). Model 2 included the independent variable: age; the results of this regression showed that model 2 (See figure 3) accounted for 4.4% of the variance (see figure 3), however, this was shown to be insignificant ( $F(5,178) = 1.62, p = .157$ ). Whilst Secure ( $B=.81, p = .61$ ), Fearful ( $B = -.321, p = .8$ ), Preoccupied ( $B = .201, p = .92$ ) and Dismissing ( $B = -1.8 p = .28$ ) scores did not contribute significantly to the model; Age ( $B = -.3.2, p = .04$ ) was found to significantly contribute to model 2.

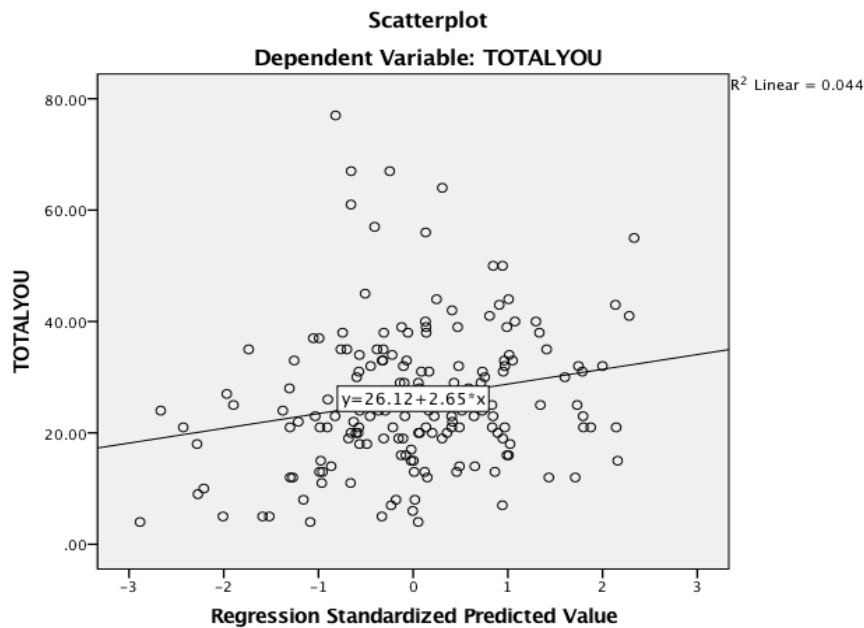


Figure 3: Regression plot showing 4.4% variance explained by Model 2.

### Full demographics prediction

A multiple regression was conducted to determine if any demographics may be used in order to predict PRCBs in individuals. The demographics were split into two models, the first model initially counting: Age, Sex, Ethnicity, Sexuality, Education, Relationship status, Employment, Family and Religion. Then model 2 accounted for the aspects that were related to the salient relationship to the questionnaire: **1)** Was it in the previous two months? **2)** How long did the relationship last? **3)** Who ended the relationship? **4)** How severe was the breakup?.

The analysis showed that model 1 was found to insignificantly predict PRCB behaviours in individuals based on their total score regarding their own behaviours ( $F(9,153) = 1.59, p = .122$ ) with an  $R_2 = .086$ . However, when accounting for the prominent features of the relationship, model 2 presented as significant

( $F(13,149) = 1.92, p = .032$ ) with an  $R^2 = .143$  (see figure 4). Age ( $B = -4.2, p = .024$ ), Family ( $B = 8.2, p = 0.021$ ) and who ended the relationship ( $B = 4, p = .041$ ) were found to be significant predictors of PRCBs and all other factors were found to be insignificant.

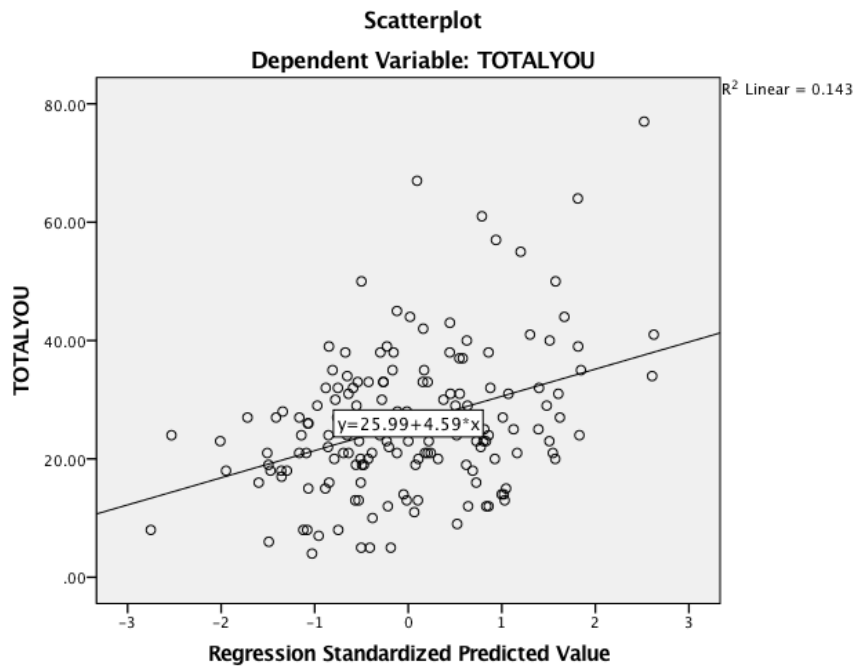


Figure 4: Regression plot showing 14.3% variance explained by Model 2.

In addition to this a mixed ANOVA was run to test the difference in the reporting of the contact behaviours for each perspective between the age groups. A significant main effect of perspective ( $F(2,183) = 12.4, p = .001$ ), however the interaction with the age groups was found to be not significant ( $F(2,183) = 1.83, p = .164$ ).



## Discussion

The current piece of research explored how demographics and adult attachment styles can influence the types of behaviours shown both before and after the breakdown of relationships. This study aimed to further research that has been conducted, taking inspiration from studies by Langhinrichsen-Rohling et al. (2000) and Lee and O'Sullivan (2014). An important finding is that in 100% of the individuals some form of post-relationship contact was evident regardless of demographics and attachment style. Before the relationship ended the most common form of contact was sending messages of affection (85.3%), looking at their social media pages (82.6%) and going to their house to see them (80.6%). Whereas, after the relationship the frequency of behaviours did lower but contact behaviours were still common: Look at their social media pages (77.5%) was the most common, followed by sending personal messages (56%) and sending apologetic messages (46.1%).

As previous studies have shown that the young people use a greater variety of technology, than people of older ages (Olson, O'Brien, Rogers & Charness, 2011); this present study has shown that this is the case for stalking/PRCBs. The youngest group of individuals exhibited more online stalking behaviours than the other group of individuals, however, there was no difference in the offline behaviours shown by any age group. Previous research has the implications of the rise in technology use for stalking behaviours (Fraser, Olson, Lee, Southworth & Tucker, 2010; Reyns & Fisher, 2011) however, the effects of age have been under researched in the case of stalking; this should provide evidence that younger individuals may be more likely to stalk using technology than older individuals. Interestingly, the difference could not be found between offline behaviours. This

may be since younger individuals are more familiar with the technology so find that this is more available to them. The reasoning for there no being a difference in offline behaviours is that as this is equally accessible to all age groups so the amount of behaviours remains similar. Interestingly, previous studies suggested that the amount of offline stalking may be used to predict online stalking (Reyns & Fisher, 2011), however, this was not found to be the case in this current study.

The differences in the behaviours is further explored and analysed; analyses were conducted into each one of the 26 behaviours that were individuals were scored on. Firstly, the youngest group performed significantly more contact behaviours, especially before the break-up had occurred. They scored higher on sending apologetic messages, went out of your way to see them and went to their house to see them than the 25+ group. This difference may be there due to the relationship being much earlier in its timescale and therefore may result in much more instances of contact than relationships that are much older. Luong, Charles and Fingerman (2011) suggested this, along with the idea that older individuals are much better at maintaining strong relationships – and this can potentially be seen in the results from this study. In addition to these behaviours before the break-up the youngest group also attempted to find out the location of their partner after the relationship much more than the 25+ group. Again, this may be linked to the pre-existing increase in the use of technology by the younger individuals.

The middling age group only showed an increase in behaviours before the break-up; Attempting to find out their partners location, going to out of their way to see them and going to their house to see them. In these instances, they

demonstrated this behaviour more than the 25+ age group; this may again be linked to ease of going to the persons' house or to see them, there is a potential for longer distance relationships in the 25+ group so result in less behaviours (Krapf, 2018). There was only one behaviour that the oldest age group showed more than the others; older individuals were more likely to go through their partner's personal belongings than the 17-20 age group. This may be due to the fact that younger individuals value trust more so than older individuals, so may not resort to going through personal belongings (Laborde, van Dommelen-Gonzalez & Minnis, 2014).

The effects of gender in stalking has been mixed; some studies see stalking as a gendered crime (Purcell, Moller, Flower & Mullen, 2009; De Smet, Uzieblo, Loeys, Buysse & Onraedt, 2015) with men often being the perpetrators of stalking/PRCBs. However, a multitude of studies have found it difficult to demonstrate an effect of gender in stalking behaviour (Shorey, Cornelius & Strauss, 2015; Lee & O'Sullivan, 2014). This present research found evidence to support there is no difference in the amount or type of PRCBs shown by each gender. Interestingly, an effect of age was found, but gender alone and interacting with age no effect was found. This does appear to imply that gender may not be a suitable as a predicting factor for stalking, however, in a majority of studies females dominate the sample size, in this present piece of research and Shorey, Cornelius and Strauss (2015) especially – 504 of 650 of the participants were female resulting in a heavily skewed sample and this may result in it being difficult to find a significant effect. Future research should ensure that a large but not skewed sample size is achieved so that a true effect may be seen.

Few studies have been conducted into the effects of race, and those that have been completed have struggled to find effects. Those that have been conducted have suggested that the amount of stalking is consistent across races (Sheridan, Arianayagam, Chan, 2018; Marcum, Higgins, & Ricketts, 2014). This current piece of research attempted to do this, however, the sample was heavily skewed towards white individuals so the analyses could not be performed. As previously mentioned future research should attempt to ensure that there are a wide range of demographics and that the sample size is not skewed in favour of one demographic.

Attachment styles are crucial across all forms of criminal behaviour and the research has shown that this is the case for stalking too (Patton, Nobles & Fox, 2010; Tonin, 2004; Wilson, Ermshar & Welsh, 2006). Insecure attachments have been shown to increase the likelihood of exhibiting stalking behaviours – Patton, Nobles and Fox (2010) suggest that individuals who display stalking behaviours score higher on insecure-anxious attachment scales and lower on secure and insecure-avoidant scales. This study used the RSQ (Griffin & Bartholomew, 1994) gives individuals a score for each of the adult attachment styles and these scores were analysed against the scores given for the stalking behaviours. Surprisingly, there was no evidence found to suggest that any of the four adult attachment styles influenced the scores of the stalking behaviours. The reasoning for this may be due to the RSQ (Griffin & Bartholomew, 1994) is not used to categorise the individuals into specific attachment styles, it is a continuous measure of attachment. This may result in a limited ability to analyse the attachment as individuals do not fit into a specific category, however, this is not necessarily the case for individuals, they may not directly fit into one category so a continuous

measure may be superior. Additional research should compare attachment questionnaires and determine which is the best approach to use for analysing criminal behaviours.

Additional analysis was conducted to ascertain which, if any demographics influenced the presentation of PRCBs by individuals. The demographics that influenced the PRCBs significantly were age, family and who ended the relationship. As the age of the individual increased the amount of PRCBs reduced, as the amount of children increased so did the amount of PRCBs and if it was the individuals partner who had ended the relationship, individuals were more likely to show PRCBs after the dissolution of the relationship. This appears to be consistent with Langhinrichsen-Rohling et al (2000) with individuals stating that when they were the sufferers of the break-up they self-reported showing more PRCBs suggesting that PRCBs are a way for individuals to attempt to restart the relationship. The younger individuals may exhibit more PRCBs due to their inexperience with relationships and are unable to cope when the relationship dissolves – further research should attempt to see if inexperience in relationships leads to an increase in PRCBs.

A limitation of the study was the sample size was skewed towards specific demographics so that some analyses could not be completed. Analyses on race and sexuality could not be completed and even in some cases, for example gender the sample size was still heavily skewed towards female individuals. In future research an explicit effort should be made to ensure that the sample size represents a specific population or ensure that the sample is representative of the general population. This proved to be difficult due to various factors, the main way

of distributing the survey was via social media sites, this meant that it was difficult to achieve a wide-ranging sample size. Furthermore, circumstantial factors were not considered, the individuals mood and mental health at the time of the break-up were not considered and this may have influenced the types and frequency of the behaviours shown, previously suggested by Patton, Nobles and Fox (2010).

In conclusion, post-relationship contact appears to be an extremely common occurrence across all ages and especially for younger individuals. This behaviour may start as attempts to reignite a relationship, however, the point in which this behaviour becomes a crime remains slightly unclear and it is possible for someone to become carried away. This piece of research implies that the focus for interventions should be on education around relationship and the dissolution of them. Providing individuals with the education will thus improve the relationships before a break-up and the behaviours shown afterwards to reduce the amount of stalking in the general population, once stalking behaviour becomes normalised it would be difficult to protect individuals who are largely at risk. Furthermore, specific focus can be placed on younger individuals and their use of technology and social media websites; as social media becomes a larger part of society, the dangers of it become ever present in everyday life. Much of the stalking offences can now occur online and give perpetrators another, perhaps more intrusive method to conduct their behaviours. Online methods provide individuals with what could be 24-hour surveillance over their potential victim, which in turn may have longer-lasting consequences for their victims and forensic psychology needs to adapt in order to monitor individuals that are high at risk of offending in this way. Further research should continue and adapt from this study ensuring that circumstantial factors are considered.

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## Appendix A

### DEMOGRAPHICS QUESTIONNAIRE

**AGE:** \_\_\_\_\_

**SEX:**

- A. Male
- B. Female

**ETHNICITY:**

- A. White
- B. Mixed / Multiple ethnic groups
- C. Asian / Asian British
- D. Black / African / Caribbean / Black British
- E. Other ethnic group

**SEXUALITY:**

- A. Heterosexual
- B. Homosexual/lesbian
- C. Bisexual
- D. Other

**EDUCATION (HIGHEST LEVEL):**

- A. Secondary school
- B. College/sixth form
- C. Bachelor's Degree
- D. Postgraduate degree
- E. Prefer not to say

**RELATIONSHIP STATUS:**

- A. Single
- B. In relationship
- C. Married
- D. Divorced
- E. Civil partnership
- F. Prefer not to say

**EMPLOYMENT:**

- A. Employed Full-Time
- B. Employed Part-Time
- C. Seeking opportunities
- D. Retired
- E. Prefer not to say

**FAMILY:** HOW MANY CHILDREN DO YOU HAVE?

- A. None
- B. 1
- C. 2-4

- D. More than 4
- E. Prefer not to say

**RELIGION:**

- A. Catholicism/Christianity
- B. Judaism
- C. Islam
- D. Buddhism
- E. Hinduism
- F. Atheist
- G. Other
- H. Prefer not to say

## Appendix B

### **POST-RELATIONSHIP QUESTIONNAIRE**

- 1. Was the relationship in the previous 12 months?**
- 2. How long did the relationship last?**
- 3. Who ended the relationship?**
- 4. When the relationship ended how would you rate the intensity of the breakup? (1 not intense, 5 extremely intense)**

### **PROCESS**

ALL QUESTIONS WILL BE YES/NO AND THEN IF THE ANSWER IS YES THEN PARTICIPANTS WILL BE ASKED HOW OFTEN THIS OCCURRED ON A LIKERT SCALE (1. ONLY ONCE, 2. A COUPLE OF TIMES A WEEK, 3. MULTIPLE TIMES A WEEK, 4. DAILY, 5. MULTIPLE TIMES A DAY)

### **BEFORE**

**ONLINE BEHAVIOURS – BEFORE the break up did YOU PERSONALLY perform any of these behaviours?**

1. Send messages online of affection –Y/N
2. Send personal messages - Y/N
3. Send threatening messages – Y/N
4. Send apologetic messages – Y/N
5. Send sexual messages –Y/N
6. Look at any of their social media pages – Y/N
7. Posted on your social media about them – Y/N
8. Gain access to any forms of their social media – Y/N
9. Attempt to find out their location via apps with location can be seen (Snapchat, find my friends etc) – Y/N
- 10.Used spyware to monitor your partners' activity - Y/N
- 11.Look for them on dating websites? Y/N

**ONLINE BEHAVIOURS – BEFORE the break up did THEY do any of these behaviours to you?**

1. Send messages online of affection –Y/N
2. Send personal messages - Y/N
3. Send threatening messages – Y/N
4. Send apologetic messages – Y/N
5. Send sexual messages –Y/N
6. Look at any of your social media pages – Y/N
7. Posted on their social media about you – Y/N
8. Gain access to any forms of your social media – Y/N
9. Attempt to find out your location via apps that location can be seen (Snapchat, find my friends etc) – Y/N
- 10.Used spyware to monitor your activity - Y/N
- 11.Did they look for you on dating websites? Y/N

**OFFLINE BEHAVIOURS – BEFORE the break up did YOU PERSONALLY do any of these behaviours?**

1. Went out of your way to see them – Y/N
2. Followed them without their knowledge – Y/N
3. Wrote them letters– Y/N
4. Sent them presents of affection– Y/N
5. Went to their house to see them – Y/N
6. Went to their place of work to see them– Y/N
7. Went through their personal belongings– Y/N
8. Rang them persistently – Y/N
9. Attempted to slander their reputation – Y/N
10. Asked their friends about them– Y/N
11. Contacted their family members – Y/N
12. Broke something of theirs– Y/N
13. Threatened them – Y/N
14. Threatened to hurt yourself – Y/N
15. Hurt them (Emotionally/physically) – Y/N
16. Took pictures of them without their consent– Y/N

**OFFLINE BEHAVIOURS – BEFORE the break up did THEY do any of these behaviours?**

1. Went out of their way to see you– Y/N
2. Followed you without your initial knowledge– Y/N
3. Wrote you letters– Y/N
4. Sent you presents of affection– Y/N
5. Went to your house to see you– Y/N
6. Went to your place of work to see you– Y/N
7. Went through your personal belongings– Y/N
8. Rang you persistently – Y/N
9. Attempted to slander your reputation – Y/N
10. Asked your friends about you– Y/N
11. Contacted your family members – Y/N
12. Broke something of yours– Y/N
13. Threatened you– Y/N
14. Threatened to hurt themselves– Y/N
15. Hurt you (Emotionally/physically) – Y/N
16. Took pictures of you without your initial consent– Y/N

**AFTER THE BREAK UP**

**ONLINE BEHAVIOURS – AFTER the break up did YOU PERSONALLY perform any of these behaviours?**

1. Send messages online of affection –Y/N
2. Send personal messages - Y/N
3. Send threatening messages – Y/N
4. Send apologetic messages – Y/N
5. Send sexual messages –Y/N
6. Look at any of their social media pages – Y/N
7. Posted on your social media about them – Y/N
8. Gain access to any forms of their social media – Y/N
9. Attempt to find out their location via apps with location can be seen (Snapchat, find my friends etc) – Y/N



- 10.Used spyware to monitor your partners' activity - Y/N
- 11.Look for them on dating websites? Y/N

**ONLINE BEHAVIOURS – AFTER the break up did THEY do any of these behaviours to you?**

1. Send messages online of affection –Y/N
2. Send personal messages - Y/N
3. Send threatening messages – Y/N
4. Send apologetic messages – Y/N
5. Send sexual messages –Y/N
6. Look at any of your social media pages – Y/N
7. Posted on their social media about you – Y/N
8. Gain access to any forms of your social media – Y/N
9. Attempt to find out your location via apps that location can be seen (Snapchat, find my friends etc) – Y/N
- 10.Used spyware to monitor your activity - Y/N
- 11.Did they look for you on dating websites? Y/N

**OFFLINE BEHAVIOURS – AFTER the break up did YOU PERSONALLY do any of these behaviours?**

1. Went out of your way to see them – Y/N
2. Followed them without their knowledge – Y/N
3. Wrote them letters– Y/N
4. Sent them presents of affection– Y/N
5. Went to their house to see them – Y/N
6. Went to their place of work to see them– Y/N
7. Went through their personal belongings– Y/N
8. Rang them persistently – Y/N
9. Attempted to slander their reputation – Y/N
- 10.Asked their friends about them– Y/N
- 11.Contactd their family members – Y/N
- 12.Broke something of theirs– Y/N
- 13.Threatened them – Y/N
- 14.Threatened to hurt yourself – Y/N
- 15.Hurt them (Emotionally/physically) – Y/N
16. Took pictures of them without their consent– Y/N

**OFFLINE BEHAVIOURS – AFTER the break up did THEY do any of these behaviours?**

1. Went out of their way to see you– Y/N
2. Followed you without your initial knowledge– Y/N
3. Wrote you letters– Y/N
4. Sent you presents of affection– Y/N
5. Went to your house to see you– Y/N
6. Went to your place of work to see you– Y/N
7. Went through your personal belongings– Y/N
8. Rang you persistently – Y/N
9. Attempted to slander your reputation – Y/N
- 10.Asked your friends about you– Y/N
- 11.Contactd your family members – Y/N
- 12.Broke something of yours– Y/N

13. Threatened you- Y/N
14. Threatened to hurt themselves- Y/N
15. Hurt you (Emotionally/physically) - Y/N
16. Took pictures of you without your initial consent- Y/N

## Appendix C

### RELATIONSHIP SCALES QUESTIONNAIRE

All questions are on a 1-5 scale, 1 being 'not like me at all', 3 being 'somewhat like me' and 5 being 'very much like me,'

1. I find it difficult to depend on other people.
2. It is very important to me to feel independent.
3. I find it easy to get emotionally close to others.
4. I want to merge completely with another person.
5. I worry that I will be hurt if I allows myself to become too close to others.
6. I am comfortable without close emotional relationships.
7. I am not sure that I can always depend on others to be there when I need them.
8. I want to be completely emotionally intimate with others.
9. I worry about being alone.
10. I am comfortable depending on other people.
11. I often worry that romantic partners don't really love me.
12. I find it difficult to trust others completely.
13. I worry about others getting too close to me.
14. I want emotionally close relationships.
15. I am comfortable having other people depend on me.
16. I worry that others don't value me as much as I value them.
17. People are never there when you need them.
18. My desire to merge completely sometimes scares people away.
19. It is very important to me to feel self-sufficient.
20. I am nervous when anyone gets too close to me.
21. I often worry that romantic partners won't want to stay with me.
22. I prefer not to have other people depend on me.
23. I worry about being abandoned.
24. I am somewhat uncomfortable being close to others.
25. I find that others are reluctant to get as close as I would like.
26. I prefer not to depend on others.
27. I know that others will be there when I need them.
28. I worry about having others not accept me.
29. Romantic partners often want me to be closer than I feel comfortable being.
30. I find it relatively easy to get close to others.

# PowerPoint Slides

## AGE AND EXPERIENCE OVER ATTACHMENT: INEXPERIENCE, NOT UPBRINGING MAY LEAD TO AN INCREASE IN POST-RELATIONSHIP CONTACT

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### AIMS

- Contact post-relationship has become normalised.
- Risk factors for stalking/Post-relationship contact behaviours to be identified.
- Demographics (Age, gender, race) to be analysed.
- Measure attachment and determine how this may influence behaviour.
- **Rationale:** To be able to identify individuals high risk of contact post-relationship and educate on the effects on victims.

### METHODS

- **Demographics questionnaire:** Demographics taken from 2011 census - total of nine questions.
- **Relationship questionnaire:** Derived from Lee & O'Sullivan and Langhinrichsen-Rohling et al (2000) – 26 questions (11 online and 15 offline)
  - Questions repeated four times
  - Before & After
  - You vs Ex-partner
- **Attachment questionnaire:** Relationship Scales Questionnaire (RSQ; Griffin & Bartholomew, 1994) 30 questions, 5 point likert scale.

### RESULTS

- **H1** – 17-20 age group exhibited more online behaviours than 25+ - no difference in offline
- **H2** – Most differences in behaviour came before break-up – only use of apps to locate ex-partner used more by 17-20 than 25+
- **H3** – Effect of age, but not gender. No interaction. Older individuals showed more offline behaviours after the break-up than 17-20.
- **H4** – Analyses could not be completed due to skewed sample.
- **H5** – No influence of attachment scores on behaviours shown.
- **Additional analyses** – Age, family (Amount of children) and who initiated the break-up influenced behaviour.

### IMPLICATIONS AND FUTURE RESEARCH

- **Implications:**
  - Effort should be made to educate on the dangers and problems with online post-relationship contact behaviours for younger individuals.
  - Stalking may not be a gendered crime but could be associated with anger over break-up
- **Future research:**
  - Ensure that sample is not skewed and is either representative of a specific population or the general population
  - Attempt to analyse the effects of participants mood/mental state at the time of the break-up

### REFERENCES

- Griffin, D.W., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology*, 67(3), 430-445.
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## **Reflective report**

The research project that I have conducted has been completed as part of the University of Nottingham Forensic and Criminological Psychology masters. As part of the project I was tasked to conceptualise and conduct a research project in the specific topic areas surrounding forensic psychology.

My choice of area for my research project was stalking behaviours and most specifically post-relationship stalking. During both my undergraduate degree and my time working as a healthcare worker my interest in the phenomena of stalking increased due to becoming more knowledgeable about the topic area. I worked closely with a few individuals who perpetrated some stalking like behaviours and this captured my interest into what influences an individuals' likelihood to exhibit such behaviours. After speaking with my supervisor on the 17<sup>th</sup> October 2019, we agreed, in order to make participant collection easier, to focus upon post-relationship contact behaviours as collecting data from individuals who have been prosecuted would not be viable.

After this meeting, I was tasked with researching the topic area to identify areas that may have been neglected by previous researchers. As stalking is still a reasonably new crime, there is a need for previous studies to be replicated to provide a clearer picture on the risk factors,

dangers and long term effects of stalking on both victims and perpetrators. The area that I decided to analyse was the risk factors associated with post-relationship contact behaviours. I felt that this area is perhaps the most salient as if the risk factors for specific behaviours are known, then individuals who are high at risk can be targeted for interventions that can educate individuals and lower their likelihood of exhibiting stalking behaviours.

As the draft research proposal was due on the 18<sup>th</sup> November 2019, I decided to start as early as possible and started the writing for the proposal on the 30<sup>th</sup> October. After having a year out from University, I found the writing to be somewhat difficult, however, having started with a large amount of time to complete it, I was able to successfully complete the draft within the timeframe. By the time the deadline passed I felt that my comprehension skills had improved however, I remained unsure how much they improved, due to this assignment being the first piece of work submitted this year.

It was during this period that I had my next supervision (7<sup>th</sup> November). At this point I was attempting to either find a post-relationship contact questionnaire that I could use or formulate my own. During the supervision, we concluded that formulating a new questionnaire would be most appropriate; as this would allow me to improve and adapt upon questions asked by others. Furthermore, I would

be able to tailor my questions to suit my hypotheses; for example, separating questions into behaviours that occur online and behaviours that occur offline enabled me to analyse the difference in mediums across the participants.

In the time until my next supervision I focused upon completing the post-relationship contact questionnaire. I used the national census to form the demographics questionnaire and the post-relationship contact questionnaire had 11 online behaviours and 15 offline behaviours. These behaviours were repeated four times, for before and after and for the individual answering the questions and their ex-partner. I felt that being able to compare the behaviours before the break-up against the behaviours afterwards was incredibly important as the behaviours before act as a control and show how individuals act in the relationship before possibly exhibiting different behaviours post break-up. At the end of the questionnaire five questions were asked regarding how the individual felt after demonstrating these behaviours, however, these questions were accidentally missed off the questionnaire so were not analysed. I was disappointed in myself for forgetting to put these questions on the survey, however, as I had received 191 responses to my survey, I decided that I would not redistribute the questionnaire and use the results that I had already obtained.

I received my feedback on the draft of the proposal on the 6<sup>th</sup> January, I had to make a few minor changes to my proposal, regarding the referencing and adding information about attachment style into the background. At the start of the year, I found it difficult to remember how to exactly format the referencing, however, after receiving my feedback I ensured that I did my research and learned how to successfully format the references. I also added information surrounding attachment styles and how it influences post-relationship contact – this was added later than the other hypotheses due to deciding that attachment was to be the focal point of the study. I was urged by my supervisors to focus upon the Relationship Scales Questionnaire (RSQ) (Griffin & Bartholomew, 1994), However, I did not realise that the RSQ is not usually used for categorising the individuals into specific attachment styles; instead individuals receive scores for all four adult attachment styles. In hindsight, I should have used another attachment questionnaire that categorises individuals into categories so that different analyses could have been conducted.

I submitted my ethics for approval from the committee on the 13<sup>th</sup> January; I received a reply on the 11<sup>th</sup> March. Minor changes were to be made for the information sheet and the consent form, however, I had received a favourable opinion and I was able to start collecting my data. I initially posted the survey on Facebook as well as other social media sites (Such as twitter, Instagram etc.); within the first day I had received



around 100 responses which was especially pleasing as my aim for the study was 151. However, in the coming days and weeks the number of people completing the survey dwindled, but via the use of Facebook groups for survey completion by the 15<sup>th</sup> of May I had received 191 responses.

It was at this point I decided that it was necessary to start to analyse the results that I had received. I contacted my supervisor for guidance surrounding analysing the results, however in the time between sending and receiving a response I had formed an idea on how I was going to conduct the analysis. I learned via the use of Youtube, how to use the compute tab on SPSS and this enabled me to calculate the total scores for the online and offline behaviours both before and after the break-up. Using these scores I then performed multiple multivariate regressions to analyse if the demographics did indeed have an impact on the behaviours shown. Upon having my next supervision on the 1<sup>st</sup> July I had some results that I had to present to my supervisors, however, I was advised that there was a slightly different way to analyse my results, I would add another point onto 5-point likert scale, that would represent never, combining the question into one to achieve more power. I did not know that this could be done and was extremely grateful to my supervisors for providing me with the knowledge to do this. In the future, I believe that before asking for help, I will spend more time working alone and doing my research, as when I did this I was able to conduct most of

the analysis without help. Then when I encounter problems that arise over a longer period of time I will then use this opportunity to ask for guidance.

In conclusion, I felt that my experience this year; formulating, conducting and analysing my research project has been a difficult but rewarding and engaging one. I felt that I have improved across all areas of my specialty, most notably, I feel much more confident in my abilities in both writing and statistical analysis and if I were to be given a similar task as this I would be able to improve upon what I have done this year. I will create an action plan for when I should complete specific sections of the project, so that I have small goals to work towards, ensuring that I manage my time and workload.

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