# The use of telepsychiatry within forensic practice: A literature review on the use of videolink - A ten year follow-up.

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## Abstract

In the last decade telepsychiatry - the use of telecommunications technologies to deliver psychiatric services from a distance - has been increasingly utilised in many areas of mental healthcare. Since the review by Khalifa and colleagues in 2007 the body of literature relevant to the forensic applications of telepsychiatry has grown substantially, albeit not by much in the United Kingdom.

In the current review we aim to provide an update summary of the literature published since 2007 to determine the effectiveness and feasibility of increasing telepsychiatry utilisation in forensic practice.

The literature reviewed provides some encouraging evidence that telepsychiatry is a reliable, effective and highly acceptable method for delivering mental healthcare in forensic settings. There are also a number of papers that indicate the use of telepsychiatry may be cost effective for health providers in the longer term.

Further research is required to consider the potential legal and ethical implications of using telepsychiatry in forensic settings.


**Keywords:** telepsychiatry; videoconference; forensic telepsychiatry; criminal justice; prison psychiatry; videolink

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## Introduction

In the last decade, there has been an increase in the use of telecommunication technology to deliver medical services from a distance. In forensic mental health settings (e.g. secure hospitals and prisons) such technology has been shown to be safe and effective for conducting clinical assessments (Khalifa, Saleem & Stankard, 2007; Saleem, Taylor & Khalifa, 2008). In other areas of healthcare, such as dentistry and urology, it also reduces the need for a face to face interaction between clinicians and patients (Sherwood, Nepple & Erickson, 2016; Morosini,de Oliveira, Ferreira, Fraiz, & Torres-Pereira, 2014).

Telepsychiatry refers to the use of telecommunication technologies to deliver mental health services from a distance (Yellowlees, Burke, Marks, Hilty & Shore, 2008). Video Conferencing (VC) – a live two way interactive video and audio communication system - is now widely used.

Although VC remains the most established technology, technological advances over the last decade paved the way for a number of other examples of telepsychiatry interventions. For instance, Hollis, Morris, Martin, Amani, Cotton, Denis & Lewis (2015) reported that mobile phone applications ("Apps") in which psychiatric patients are able to input 'real-time' data enable robust clinical assessment and management. Further, Johnson, Williams & Zlotnick (2015) reported on a mobile phone call intervention trialled to support women with depression and substance misuse transitioning from forensic facilities to the community. Alongside this, there is evidence that using 'Facetime' on

smartphones, a low cost portable application, to deliver healthcare interventions allows access and immediacy from the perspectives of both the patient and clinician (Chan, Torous, Hinton and Yellowlees, 2014).

In a previous literature review on the forensic applications of telepsychiatry, Khalifa and colleagues (2007) noted that one of the commonly cited reservations about telepsychiatry is that videolink interviews may be less empathetic than direct face-to-face interviews and may have a detrimental impact on the development of therapeutic rapport. However, encouragingly, evidence from more recent studies indicates that, in terms of patient satisfaction, videolink consultations may be as acceptable as those conducted in the traditional “in-person” manner (Garcia-Lizana, Munoz-Mayorga, 2010, O’Reilly et al, 2007).

Numerous reports make reference to the potential for efficiency and cost savings associated with using telepsychiatry for assessment and follow up. In countries such as the USA and Australia, where the population is spread over a vast geographical area, the use of videoconferencing can reduce the need for clinicians (or patients) to spend time travelling long distances with associated travel expenses. In the UK the geographical area is smaller. However, there is still a relatively small forensic work force with just 356 whole time and 90 part time Consultant Forensic Psychiatrists in England, Wales, and Northern Ireland (Royal College of Psychiatrists, 2015) to cover 7,719 NHS inpatient beds in forensic hospitals in England (NHS England, 2015) and potentially up to 85,839 prisoners in HM prisons (Gov.UK prison statistics, 2016) so the benefits of

reduced cost and travel along with time saved by utilising VC are highly relevant.

Security is another area of potential benefit and of particular importance in forensic settings. For example, facilitating the transport of prisoners out of secure sites to attend face-to-face healthcare appointments or court appearance is associated with considerable security risks and often requires a high level of staff support (Fazel, Fiminska, Cocks & Coid, 2016). When such engagements can be successfully conducted over videolink the need for the individual to leave to secure site (and the associated demand on staff-resources) is removed.

Leonard (2004) raised concerns about a lack of guidelines regulating the practice of telepsychiatry and the maintenance of patient privacy and confidentiality. However, the American Telemedicine Association and the Canadian Health Agency both went some way to addressing these concerns by providing a set of policies and standards to govern the use of telepsychiatry in clinical practice (Yellowlees et al, 2008, Canadian Clinical guidelines, 2006). These guidelines consider the use of VC for clinical interviews, emergency evaluations and delivering supervision in a range of mental health settings and provide guidance in relation to ethical considerations, technical specifications and the administration of the process. In addition to this, the American Psychiatric Association also has a website in which all aspects of telepsychiatry are covered from both clinical and patient perspective to further the cause and understanding (American Psychiatric Association)

There have been several reviews completed in the last few years by Mars, Ramlall and Kaliski (2012), Chakrabarti (2015) and Hubley, Lynch, Schneck, Thomas, and Shore (2016) which cover similar issues. This study will try to focus specifically on how and why telepsychiatry in forensic settings is not as popular or well utilised in the United Kingdom as it is in other developed countries.

The evidence reviewed above, indicates that literature relating to the application of telepsychiatry in forensic settings has grown since the publication of the review by Khalifa and colleagues (2007). Therefore, we aimed to update it by providing a narrative review on this with special considerations to the UK.

## Method

We conducted a search of the Medline, Embase, PsychInfo, Association of Telehealth Service Providers (ATSP Online), Telemedicine Information Exchange (TIE), AMED and criminal justice extracts databases. The lists of references in the relevant articles found were then hand-searched for additional papers not picked up by the initial search. We reviewed findings from all articles (this also included Grey literature which was mostly government guidelines or technical reports) published in English between 2007 and 2017 along with the articles from the previous submission on the use of video conferencing facilities in forensic settings using the following search terms: telepsychiatry, telemedicine, telehealth, telepsychology, forensic telepsychiatry,

videoconferencing, videolink, satisfaction, effectiveness, court, prison, and secure units. Throughout this review, the terms videolink, videoconferencing, telepsychiatry, and forensic telepsychiatry will be used synonymously.

In reporting the findings of this review, we followed the PRISMA guidelines (Moher et al. 2015). Two review authors (CS, LM) independently selected studies for inclusion in the review. Where there was disagreement, a third author (NK) adjudicated. Data were extracted using a data collection tool which was designed specifically for the purpose of this review. The tool was used to extract information concerning authors, study population and setting, methods, key outcome measures and main findings.

## Results

The initial search identified 869 records after duplicate check and initial screening was completed. Subsequently, 89 articles that addressed the use of video conferencing in areas relevant to the practice of forensic psychiatry were identified for the review.

Figure 1 Here

Key study characteristics are summarised in Table 1. The findings of studies pertaining to the use of telepsychiatry in forensic settings are further described below under the headings of:

- Reliability and acceptability for use in forensic settings and the courts
- Efficiency savings in costs and travel
- Security Considerations

Presented in this review are also findings from studies concerning the use of telepsychiatry in non-forensic settings, but which have implications for clinical practice and future research in the forensic field. These papers are presented under the subheadings of:

- Efficiency savings in costs and travel
- Patient and Clinician Satisfaction
- Legal and Ethical considerations

Table 1 Here

## The use of telepsychiatry in forensic settings

### Reliability and acceptability for use in Forensic Settings and the Courts

Assessing a patient via a videolink should provide essentially the same information gathered via a face-to-face interview. Using a randomised controlled trial design, Manguno-Mire, Thompson, Shore, Croy, Artecona & Pickering (2007) specifically examined the use of telepsychiatry to conduct competency to stand trial assessments and showed telepsychiatry assessments are just as effective and reliable as those conducted face-to face.

Miller, Clark, Veltkamp, Burton and Swope (2008) identified a number of state and federal cases in the United States in which telepsychiatry or telemedicine has been utilised. In none of these cases was either the doctor or the use of videolink criticised. The use of videoconferencing for a mental competency hearing did form the basis of an appeal in one US Military case. However, the court ruled that that the use of videoconferencing for such a hearing did not violate due process and that there was no legal basis for appeal based on interview modality (Schneider, 2006).

Evidence from other studies, indicates that services and patients are becoming more accepting of videolink in the use of mental health care (e.g., O'Reilly, Bishop, Maddox, Hutchinson, Fisman & Takhar, 2007; Batastini, King, Morgan & McDaniel, 2015; Kornblush, 2015).

In regard to the court settings, VC has been used in "virtual courts" which have been operating in parts of the United Kingdom since 2009. In "virtual courts" the defendant appears in the court via video link from a police station for plea, bail, remand or sentencing hearings (Terry, Johnson & Thompson, 2010). There are safeguards in place that, in theory, prohibit use of this virtual court model with defendants that are deemed to be "vulnerable" (Terry et al, 2010). However, Ward (2015) expressed particular concerns regarding this and the potential impact these may have on vulnerable defendants such as those with mental disorder, substance misuse problems or intellectual disability.

In addition, to concerns held about the possible weakening of the relationship between the defendant, their legal team and the courtroom as a consequence of the virtual court system, it has been noted that defendants may not feel comfortable providing sensitive or personal information to strangers via video link while sitting in a room in a police station (Atkinson, 2012). Such concerns or anxieties may be amplified in those defendants with mental disorder or substance misuse issues.

While acknowledging that the virtual court model may offer potential for significant savings in terms of time and cost, the importance of ascertaining whether such models work equally fairly for all defendants, particularly those with the vulnerabilities outlined above, has been emphasised by some authors (Rowden, 2013; Ward, 2015).

***Efficiency savings in costs and travel***

Reasons favouring videolink technology in courtroom proceedings are the time and financial savings it conveys by improving the rate at which cases progress and are dealt with (Ministry of Justice, 2011). When looking at a population of forensic psychiatry patients it is vital to consider the costs involved (staffing, secure transport) with moving them from one facility to another, but also when the psychiatrist is required to attend to another location for assessment, professional meeting, gatekeeping or other purposes. Additionally, it is worth noting that the use of telepsychiatry would reduce the impact of the psychiatrist being unavailable for a large portion of the day due to travelling from one

location to another to conduct an assessment. Forensic mental health services are ‘high cost, but low volume’ and since not all cities have a local forensic hospital patients could have to be moved out of county (Fazel et al, 2016). Utilising telepsychiatry has the potential to bring cost and time savings in this domain.

### *Security Considerations*

Security considerations are of particular relevance to forensic mental health services. Conveying a patient outside of a secure setting can be associated with institutional risks such as escape and, depending on the profile of the patient being transported; potentially significant media interest (Fazel et al, 2016).

In a similar vein, it has been argued that the use of such technology in courts in the vast geographical area of remote and regional Australia, for instance, reduces the need to transport prisoners long distances for court hearings and the need to commit prison staff to facilitate such journeys. In addition to being “convenient and cheap” use of videolink decreases risks associated with prisoner transportation (Wallace, 2008; Rowden, Wallace, Tait, Hanson & Jones, 2013)

## **The use of telepsychiatry in non-forensic settings**

### *Efficiency savings in costs and travel*

A number of papers highlight the potential savings in travel time and costs and other cost benefits of the utilisation of videolink in all settings. The clear benefits for the patients include reduced requirement to travel particularly for those with reduced accessibility owing to their distant location. Similarly, for services and institutions the use of telepsychiatry has been associated with savings in travel time and costs (Waugh, Voyles and Thomas, 2015).

From a financial viewpoint, it appears to be rural areas in particular that have benefited from the provision of telepsychiatry services. For instance, a rural telepsychiatry service in Australia provided a range of psychiatric services including adult and child and adolescent services, demonstrating annual cost savings of more than $100,000 (approximately £80,000) to the health authority (Trott & Blignault, 1998). Additionally, a 40% reduction in patient transfers due to the introduction of telepsychiatry produced annual savings of more than $96,000 (£76,000). Alongside this, Rabinowitz, Murphy, Amour, Ricci, Caputo and Newhouse (2010) reported savings of over $30,000 (£24,000) in a year for the use of an old age telepsychiatry service for a nursing home, which would equate to 278 visits otherwise.

***Patient and Clinician Satisfaction***

Both patient and clinician satisfaction is an important consideration for all healthcare interactions. Attempting to quantify the levels of satisfaction for the

use of telepsychiatry is important, especially when arguing for its use as an alternative to or alongside traditional face to face interactions.

There have been some specific areas of psychiatry (such as child and adolescent mental health services) which have demonstrated high satisfaction rates, in this case from both parents and their children, for the service received (Diamond and Bloch, 2016). Lexcen, Hawk, Herrick & Blank (2007) reported that in a forensic setting, users reported similar levels of satisfaction for consultations conducted face to face or via VC. In fact there is evidence that those born after 1989 (sometimes referred to as 'digital natives' owing to the ever constant access to the internet) feel that it is out of touch, inconvenient and costly to physically travel to any health appointment and as such are in favour of telepsychiatry and what it can offer since it feels more accessible (Yellowlees, Chan and Parish, 2015)

Some commentators have noted concerns about the privacy of the assessments on both side of the videoconference have previously been noted by some commentators. For instance, Myers, Valentine, Morganthaler & Melzer (2006) argued that there may be particular subgroups of patients who would be initially distrusting of a videoconference interaction. For example, those with psychosis or high levels of paranoia or anxiety may struggle to believe that there is no-one else in the room with the psychiatrist or "listening in". These cases suggest a trusting relationship may need to be built up through initial face to face interactions before considering the telepsychiatry approach. Although evidence produced by Kocsis and Yellowlees, (2017) suggests that 'special'

patients populations such as psychotic, highly anxious, autistic spectrum and traumatised patients can utilise telepsychiatry services to great effect with some minor changes.

The clinician-patient relationship is important in psychiatry for establishing a trusting therapeutic relationship upon which long term interventions / treatment can hinge. This can be dependent upon the feeling of knowing each other and spending time together. With telepsychiatry, patients have talked about the relationship being no better or worse, just different. It is however the potential inability for the clinician not to be able to pick up on discrete cues or just the lack of a physical presence (Richardson, 2012) that epitomises this difference.

However, more recent work completed by Kocsis and Yellowlees (2017) has suggested that therapeutic interventions can be undertaken utilising VC and that it may help with patient anxiety. Patients can pick their own venue making them more comfortable, it may allow the patient to feel more in control of the situation which can equal out some of the imbalance felt between patient to clinician and it can allow the patient to feel more relaxed affording an easier flow to the conversation. It may also reduce a patients feeling of stigma (Shore, 2013).

***Legal and Ethical considerations***

The legal and ethical issues concerning the use of telepsychiatry in all areas remain similar to those described in the Khalifa et al (2007) paper. These

include concerns about the safety and integrity of patient information and differences in licencing and professional regulations across jurisdictions. The latter is less of a problem in the UK where the practice of medicine, including forensic psychiatry, is regulated by a single body, namely the General Medical Council. However, there are seemingly still low numbers of psychiatrists utilising this service in the UK. Issues are more likely to arise in the USA, particularly in situations concerning patients moving states but wanting to retain the same psychiatrist who may be only licenced to practice in a single state (American Psychological Association, 2013).

Raposo (2016) alludes to European laws where telemedicine is regarded simultaneously as a health service and an information technology service. The main concern this causes is the separation of boundaries for what are healthcare or IT issues and there are no uniform regulations at the European level in relation to this matter.

Videoconferencing is not always as secure as it may appear, giving rise to concerns over privacy, security, and confidentiality. Since telepsychiatry is often not governed by a unified policy in most countries, its use could be categorised as almost experimental. Therefore, the importance of obtaining consent from patients and informing them of the risks and benefits is crucial. Lack of specific procedures to manage behaviours such as self-harm or other adverse events during consultations may lead to institutional or individual accountability which could cause clinician reluctance to utilise.

## Discussion

Since 2007 there has been an increase in both the availability and quality of videoconferencing technologies. The number of articles reporting the utility of telepsychiatry has grown steadily with more large scale reviews, the use of randomised control trials and systematic reviews all offering positive evidence and reflecting the growing interest in this area. This is more important than ever with service users consistently reporting dissatisfaction with a 'top–down' one-size fits-all approach in psychiatry (Hollis et al, 2015) which is where telepsychiatry can fit into a gap by being more patient focused and allowing them to feel empowered in utilising a service that allows them to stay at home but also receive care. It also appears true that telepsychiatry in non-forensic domains is extremely effective at increasing access to care (Hilty, Ferrer, Parish, Johnston, Callahan and Yellowlees, 2013). This suggests that it could also impact and improve elements of forensic practice.

Reports that state cost savings or better value for money in terms of accessibility to videolink technologies provide a cogent argument for its use. As well as setting up for patient use, existing evidence indicates that there are a multitude of reasons as to how telepsychiatry can provide suitable and successful support to traditional psychiatry.

Although there seems massive scope for its use in the UK some of the best evidence (particularly in reference to cost savings) being produced is based upon large geographical areas. Since the UK is nowhere near as large or

having a population distribution spread out as far as some of the rural areas in Australia, South Africa and the USA, these countries have produced more evidence of its utility. As such the main attraction to use of telepsychiatry in the UK might not be the sole argument of cost savings.

The benefits of reduced costs can be potentially misleading as these benefits may only be accrued in a well-established telepsychiatry service where all the videoconferencing equipment is in place as that can be a major expense not to mention the costs associated with maintaining the service. From a financial perspective alone, Butler and Yellowlees (2012) have suggested that 249 consultations were required in order to offset the costs associated with setting up a VC facility which would mean that these services need to set-up as a long-term service to see the real cost savings. Hubley et al (2016) calculated that it can range from 6-379 contacts dependent upon equipment purchased and sophistication of the service delivery. Although, individual cost reduction is of particular importance to the patients receiving psychiatric care as they are more likely to come from low socio-economic backgrounds compared to the general population.

Hubley et al (2016) examined all aspects of reliability in the use of videolink for psychiatric assessments. These authors found that there was no strong evidence that face to face interview offered any distinct advantages compared to those conducted via videolink. In addition they identified that the use of an interpreter does not appear to reduce the reliability although more UK studies

are required to replicate this to confirm this finding within the psychiatric domain especially given the large variety of different cultures residing in the UK.

In the UK, use of telepsychiatry could be particularly beneficial within the realm of providing forensic expertise in courts and other criminal justice settings and in conducting access or gatekeeping assessments for admission to forensic hospitals. The use of telepsychiatry in these areas still appears to be happening sparingly. It may be that the services are operational in the UK, but with little published evidence of their utility, effectiveness, acceptability and reliability. It is notable, however, that other countries have extoled its virtues in this domain. In the UK, numbers of practicing Consultant Forensic Psychiatrists have increased since the last review and beds in forensic mental health services are very valuable with large numbers of patients from different units requiring assessments potentially from different corners of the country. As such forensic telepsychiatry use here would be advantageous in terms of savings related to time and travel costs. As forensic psychiatry is well known for being high cost to low patient numbers owing to the complexity of the patient population and the security requirements, the potential to reduce time and travel costs should be explored thoroughly. It has been suggested that training in telepsychiatry becomes part of specialist training in psychiatry as its use is an emerging reality for future consultants in the UK which may help overcome some of the fear over its use in clinical practice.

Despite the potential benefits discussed above, a number of authors have raised concerns about the rapid advancement of telepsychiatry and similar

technologies within forensic and criminal justice settings. Although telepsychiatry has been around for approximately 60 years, the current explosion of similar technologies do not appear to have been as rigorously evaluated as telepsychiatry but are still in use even before telepsychiatry has, in essence, been approved universally. Hubley et al (2016) identified that the reliability telepsychiatry is dependent upon having an excellent bandwidth since reductions in video and audio quality can impede the ability to complete accurate observations. Furthermore, they also suggest that assessments that require the use of a psychometric tool (such as the Brief Psychiatric Rating Scale; Overall & Gorham, 1998) are more difficult to conduct.

A major obstacle to the use of telepsychiatry still appears to be a lack of desire by professionals to use this technology as stated by Saleem and Stankard (2006), although the reasons for this remain unclear. It could be due to lack of specific legislation to govern its use, fear of not being able to manage a patient in case of a psychiatric emergency, concerns about missing vital observations or just unease about using the technology itself . There is some evidence to suggest that some interactions (e.g., clinical interviews or competence to stand trial assessments) are more suitable than others (e.g., complex assessments that require the use of psychometric tools) for the use of telepsychiatry.

In England and Wales, it is accepted that in telepsychiatry ‘the accountability and ethical duties of doctors remain the same’ (British Medical Association, personal communications, 6 November 2006) suggesting that the rules of conduct that govern face-to-face encounters are applicable.

It is also essential to consider the patient factor and how they may use VC, particularly in forensic services. In the UK, admission to a forensic hospital can involve a move 'out of area' and the use of VC can enable face-to-face contact with loved ones or friends. This may be particularly useful with those who have been moved a considerable distance from home and might not otherwise get regular visits. This would also be compatible with the least restrictive practice enshrined within the English Mental Health Act 1983 code of practice (Department of Health, 2015).

**Study Limitations**

A major limitation of this review is that it is narrative in scope. Existing literature in the field is not sufficiently broad to inform a systematic review. Notably, there is a dearth of RCTs which specifically assess the cost effectiveness, efficacy or acceptability of telepsychiatry. Nevertheless, a narrative review allowed the breadth of the literature to be adequately captured to provide clinically relevant information. In addition, the number of studies included in the review is relatively small and some entailed conducting feasibility studies involving convenient samples.

## Conclusion

The current evidence along with more long standing views still demonstrate that telepsychiatry in UK forensic settings is still underutilised. Future research is required to demonstrate its utility, cost effectiveness and acceptability in the UK. Additionally, telepsychiatry can potentially enable services to become more

responsive by reducing response time after referral. Swift responses and nimble services are made possible by telepsychiatry. Timely services, it can be argued, ultimately make patient experience better and less distressing.

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Figure 1. PRISMA diagram for search results

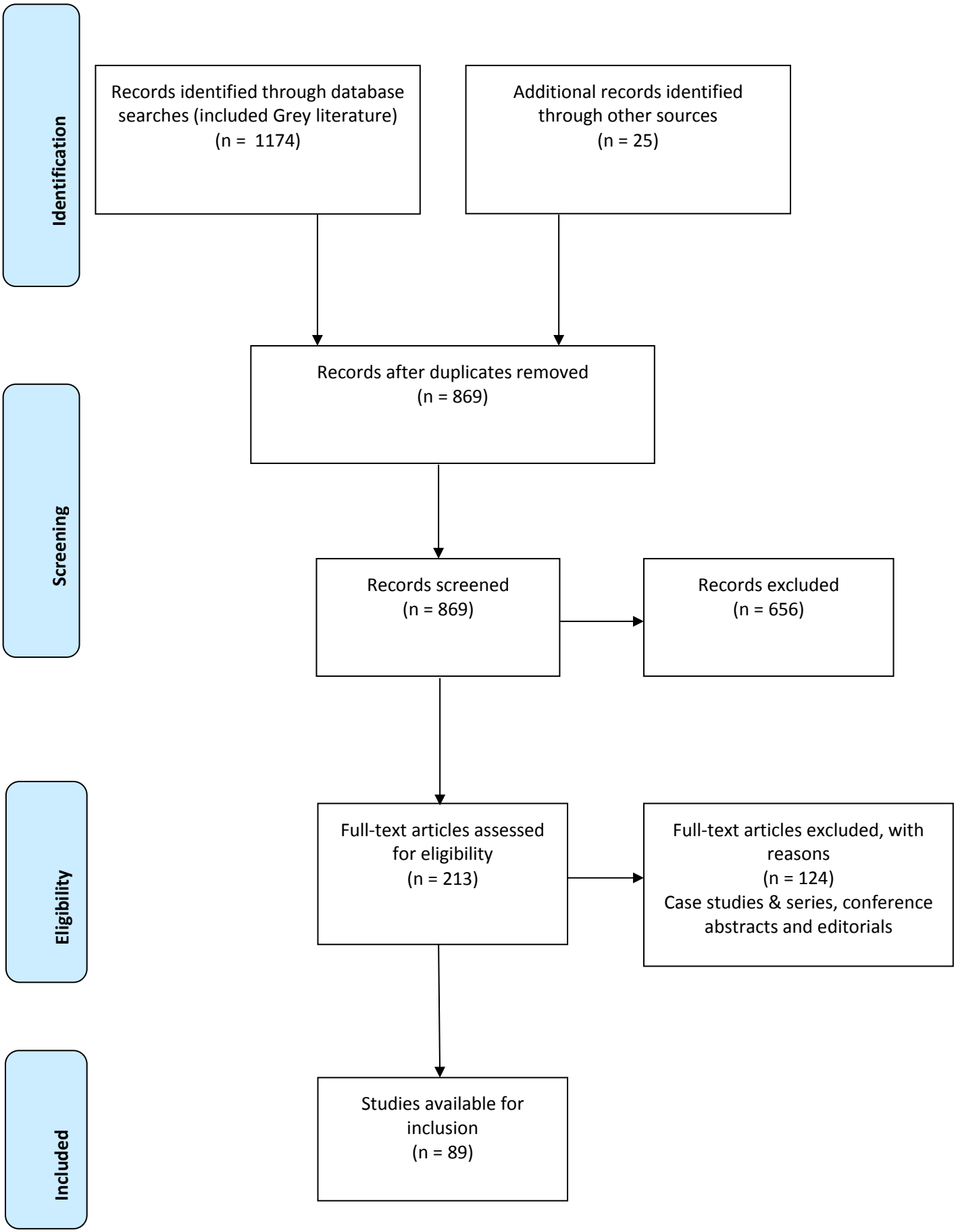

**Table 1. Summary of studies included in the review**

| Study | Patient population / setting | *n* | Methods | Key outcomes | Comments |
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| **Use of telepsychiatry in forensic settings** | | | | | |
| Manguno-Mire et al, (2007) | Forensic psychiatric inpatients, USA | 21 | Competency to Stand Trial; patient and provider satisfaction | competency to stand trial reliably evaluated using TP; patients perceive TP as an acceptable alternative to F2F | Use of TP to Evaluate Competency to Stand Trial |
| Miller et al, (2008) | Child and adolescent forensic inpatients, USA | NS | Assessing consultation, continuing education, court testimony, and clinical services using TP | TP can provide standardized and universal forensic coverage to all children by linking metropolitan university medical centres and specialist services with rural school districts. TP is considered by some to be a solution to USA's toughest health and mental health-care challenges, including access to psychological service programs | The future of TP in provision of forensic services must address confidentiality and licensing for service provision |
| Terry et al, (2010) | Virtual courts, UK | NS | Assessment of costs involved and speed for cases to be dealt with | Savings made during pilot were exceeded by set-up costs; average number of hearings higher per day | The pilot has been successful in significantly reducing the average time from charge to first hearing |
| Ward, (2014) | Virtual courts, UK | NS | Review of | In general terms, | Use of VC in virtual courts |

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| | | | procedural due process through use of VC | reservations can be levelled at changes as it can be argued notions of judicial impartiality and procedural due process are being undermined through use of VC | received a mixed review from this study |
| Rowden, (2013) | Justice settings, Australia | NS | Operational guidelines for the use of VC in courts | How VC is utilised impacts service delivery, and therefore justice outcomes<br>A successful VC court encounter<br>Needs consideration of the technology, environments, personnel, protocols and legislation that enable their use. These factors work together and none of them should be ignored or viewed in isolation. | Looks at the use of TP for specific uses – most relevant being expert witness evidence |
| Wallace, (2008) | Use of VC in courts and tribunal proceedings, Australia | NS | Assessing uses and pitfalls of VC in courts | Looked at specific courts in rural Australia that utilise VC and who deal with a high proportion of Aborigine defendants which puts them at an individual disadvantage. Other courts gave positive results | Useful in identifying that specific portions of any population could be at disadvantage because of VC |
| Lexcen et al, (2007) | Maximum security forensic inpatients, USA | 72 | Feasibility of TP | Users of TP can expect to provide clinical information similar to that obtained by | Study is simply done and shows TP effectiveness, yet was completed in 1998 |

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| | | | | in-person interviews. | |
| Myers et al, (2006) | Incarcerated youth; USA | 115 | Feasibility of TP; satisfaction measured | TP is feasible and acceptable despite concerns over privacy | Simple description of a consultation model; a range of psychiatric disorders treated using TP |
| Johnson et al, (2015) | Patients transitioning from prison to community, USA | 22 | Development and feasibility testing of cell phone-based intervention for patients with comorbid substance use and depressive disorders. | The outreach strategy of providing participants with low-cost cell phones programmed with resources and the prison counsellor's number proved feasible in most respects. In particular, women valued contact with familiar prison providers in the high-risk days and weeks after release from prison and found this contact helpful in managing cravings and difficult life events | The study intervention was novel in two ways: as an adaptation of Interpersonal Psychotherapy for depressed substance users, and the extension of participants' relationships with prison counsellors into the post-release phase via cell phone. |
| **Use of telepsychiatry in Non-forensic settings** | | | | | |
| Richardson, (2010) | Rural community patients, Australia | NS | Feasibility of TP to the rural communities; satisfaction measured | As a treatment of choice, TP is used by very few practitioners, despite clients consistently reporting satisfaction with the medium. TP successes could be due, in part, to having never met the clients F2F and therefore, never having to overcome | If TP is not treated apologetically, or like a —poor cousin, it can achieve therapeutic results, albeit via a different route, as robust as those achieved in F2F encounters. |

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| | | | | expectations | |
| Diamond and Bloch, (2016) | Child and adolescent psychiatry, USA | NS | Assessing the ability of TP assessments to facilitate favourable treatment outcomes, particularly for child or adolescent patients | There is acceptance for the diagnoses and recommendations given through the use of TP and are not seen as different from in-person assessments | There are no data that suggest that TP contributes to negative outcomes in child and adolescent patients. |
| Rabinowitz et al, (2010) | Old age psychiatry / nursing home, Canada | 106 | Time and cost analysis | Providing psychiatric care to rural nursing home residents by TP is cost effective and appears to be a medically acceptable alternative to F2F care. In addition, this approach will allow many nursing homes to provide essential care that would not otherwise be available. | Using TP was enthusiastically accepted by virtually all residents, family members, and nursing home personnel, and led to successful patient management |
| Trott and Blignault, (1998) | Rural outreach; Australia | NS | Cost analysis | Cost saving with TP; reduced travel | Use of TP results in cost savings |
| O'Reilly et al, (2007) | rural and geographically isolated regions, Canada | 495 | Feasibility of TP | consultation and follow-up provided by TP can produce clinical outcomes equivalent to those achieved by F2F | Use of TP to assess patients in rural areas |
| **Legislative** | | | | | |
| Raposo, (2016) | Europe | NS | Looking directly at the legal framework of telemedicine in Europe | In European law TP is, simultaneously, a health service and an information service, therefore, both regulations apply. Many | Study still shows there are differences in standards and design of TP services all over Europe |

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| | | | | issues lack uniform regulation, the domain of medical liability and of medical *lege artis*. Probably standardization will never take place, since the EU does not have, until now, a common set of norms regarding tort and criminal liability. | |

NS = not stated; TP = telepsychiatry; FTP = forensic telepsychiatry; NA = not applicable; F2F = face to face; VC = videoconference