



Deposited via The University of York.

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/id/eprint/149365/>

Version: Accepted Version

Article:

Park, Alice May Edith, Booth, Alison Margaret, Parker, Adwoa et al. (2021) Models of Mental Health Triage for Individuals coming to the Attention of the Police who may be Experiencing Mental Health Crisis:A Scoping Review. Policing. pp. 859-895. ISSN: 1752-4512

<https://doi.org/10.1093/police/paz050>

Reuse

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.

Models of mental health triage for individuals coming to the attention of the police who may be experiencing mental health crisis: a scoping review

Alice Park¹, Alison Booth², Adwoa J. Parker², Arabella Scantlebury², Kath Wright³, Martin Webber¹.

¹*Department of Social Policy and Social Work, University of York, York, UK*

²*Department of Health Sciences, University of York, York, UK*

³*Centre for Reviews and Dissemination, University of York, York, UK*

Corresponding author address: Alice Park, Research Centre for Social Sciences

6 Innovation Close, University of York, Heslington, York, YO10 5ZF, UK email:

amep501@york.ac.uk, telephone: 07377475586.

Manuscript word count: 5320

Introduction

Worldwide, the police frequently come into contact with individuals experiencing mental illness and face significant challenges when doing so (Coleman and Cotton, 2010; Chappell, 2012; College of Policing, 2015; House of Commons Home Affairs Committee, 2015).

Police encounters with those experiencing mental illness, particularly a mental health crisis, are highly complex. Moreover, police officers are not trained mental health professionals, bringing into question the appropriateness of a police response where mental health issues are a concern. Consequently, specialised responses to improve police interactions with those experiencing mental health issues have been developed.

Specialised police-mental health partnerships addressing mental health issues in the community were pioneered in the USA (Deane et al, 1999). Puntis et al (2018) distinguish two main models of these partnerships. The first of these includes specially trained officers in mental health, where the emphasis is on the officer's skills in mental health, and is police based. The Crisis Intervention Team (CIT) model is an example of this (Watson and Fulambarker, 2012; Puntis et al 2018). The second is a co-responding model, where mental health professionals assist the police in their response to an individual in need of mental health support (Puntis et al, 2018). These co-responding models have been implemented on a global scale (Steadman, 2000; Kisley 2010; The Allen Consulting Group, 2012; Reveruzzi and Pilling; 2016; Puntis et al, 2018) and in this paper will be referred to as mental health triage.

Mental health triage schemes were first implemented at two locations in the UK in 2012. These were followed by nine pilot sites in 2013 (Dyer, Steel and Biddle, 2015) which involved mental health professionals supporting the police in their front-line encounters with those experiencing mental health related incidents. In England and Wales, the police are

frequently the first public service to have contact with individuals experiencing mental health issues (Mental Health Network NHS Confederation, 2015), yet officers can feel unprepared for their role (Adebowale, 2013), despite having important responsibilities under the 1983 Mental Health Act. Mental health triage was implemented to address growing concerns over police interactions with those experiencing mental health issues as well as the outcomes of these contacts (Her Majesty's Inspectorate of Constabulary, 2014).

Specifically, these concerns included the increasing use of Section 136, where police have the power to detain an individual experiencing mental health issues they perceive are in need of care or control (Curtis et al, 2013; Keown, 2013). Problems with police custody being used as a place of safety when an individual is detained were also raised, and lack of understanding of the procedural elements and policies of Section 136 (Her Majesty's Inspectorate of Constabulary; Her Majesty's Inspectorate of Prisons, Care Quality Commission; Healthcare Inspectorate Wales, 2013). These are important considerations as the experience of being detained under Section 136 can be stigmatising and alarming for individuals already distressed because of their mental health state (Riley et al, 2011).

The issues surrounding the collaborative practice between criminal justice and health systems identified in key policy documents (Bradley, 2009; Department of Health and Concordat signatories, 2014) directly informed the development of schemes such as mental health triage in the UK. Mental health triage was featured in the Crisis Care Concordat as an example of how agencies can work together to provide a more streamlined and coordinated multiagency response (Department of Health and Concordat signatories, 2014), with different schemes based on these models being developed to address the needs of the locality it was set up in (Reveruzzi and Pilling, 2016).

Despite an increase in the implementation of mental health triage in the UK and worldwide,

and thus a proliferation of different mental health triage schemes, the evidence for effectiveness is unclear, and a review of the existing research literature of these schemes is warranted. In this scoping review, we detail the features of mental health triage schemes found within the research literature. This will build on the work by Puntis et al (2018) to provide a more in depth description of the schemes following the co-respondent model, to identify gaps in the evidence and inform future implementation.

Methods

Originally, we set out to conduct a systematic review of effectiveness of mental health triage for individuals in contact with the police who may be experiencing mental health crisis, the protocol for which was prospectively registered on PROSPERO (CRD42016042008): http://www.crd.york.ac.uk/PROSPERO/display_record.asp?ID=CRD42016042008.

However in the absence of robust study designs in the papers identified for inclusion, a review of the effectiveness of triage schemes was not appropriate. We therefore proceeded with a systematic scoping review to describe the different co-respondent triage schemes that appear in the literature. Scoping reviews depict the key characteristics of a research area, and provide a descriptive summary of the research area of interest (Arksey and O'Malley, 2005). This method was therefore appropriate to address the aim of providing a descriptive overview of the various triage models identified in the literature, while maintaining rigour by using systematic method.

Inclusion criteria

Participants were individuals of any age who were, or were perceived by a member of the public, themselves or a police officer to be experiencing a mental health crisis.

Interventions were schemes where collaboration between the police and mental health

professional(s) involved the mental health professional advising the police and supporting them to manage individuals perceived to be experiencing mental health crisis. Due to the range of different approaches to co-respondent mental health triage, a broad, pragmatic approach was taken to include both first and second response schemes, and those that offered both. First responders are teams that go to a potential crises incident before other responders, for instance they arrive before the police. Second responders are teams that will go to the incident after an initial response to the potential crisis. Schemes where the police receive extra mental health training as part of the mental health triage scheme; different means of communication between the police and mental health professional (e.g. telephone advice or face to face) and any configuration of professionals in the response team as long as this included a mental health professional. Any setting (public or private) was also included.

Delivery of the intervention had to be primarily in the pre-arrest phase, where there is an element of “*street level discretion*” (Kelly, 2016 p.93). At this point, people coming to the attention of law enforcement may be at risk of arrest. However, mental health professionals providing their expertise during this phase, as an alternative to a sole police response, can help where appropriate to divert individuals with mental health issues away from the criminal justice system (Kelly, 2016). Models with a post-arrest element were only included where the model response appeared to primarily occur in the pre-arrest phase.

Excluded were studies where there was no collaborative arrangement between the police and mental health professionals, or if the encounter occurred solely post-arrest. Schemes based on CIT model were not included. In the police based CIT model, officers are specially trained in mental health to provide the response (Watson and Fulambarker, 2012; Schaefer Morabito, Watson and Draine 2013), the CIT model differs from the co-responding

model described in this paper, which includes support from a mental health professional during mental health encounters (Puntis et al, 2018).

Types of study included were randomised controlled trials (RCTs) with any comparator; non-randomised controlled studies, observational studies such as: cohort, interrupted time series, uncontrolled before and after studies and mixed methods studies. We also included qualitative studies exploring mental health triage.

Search Strategy

The following databases were searched between 1970 and June 2016: ASSIA, Criminal Justice Abstracts, Embase, MEDLINE, PAIS, PsycINFO, Scopus, Social Care Online, Social Policy & Practice, Social Sciences Citation Index, and Social Services Abstracts. The full database search strategy, with adaptations for each database, can be found in Supplementary file 1. An update to the search was conducted in July 2018. A structured internet search was also undertaken using Google Advanced. This was limited to the first 100 records and to PDF files. Relevant organisation websites were manually searched. Restrictions were to English language and studies in OECD countries.

Study selection, data collection and analysis

The search strategy was developed and electronic database searches carried out by an information specialist (KW). Both the initial title/abstract screening and subsequent screening of full records were undertaken independently by two researchers (AP/AS/AJP) with discrepancies referred to a third researcher (AB/MW).

A data extraction form was piloted and the information extracted into an Excel spreadsheet by one researcher (AP), with 53% of the data being independently checked by a second researcher (AS/ AJP/AB). The information selected from each study included study

design and the key features of a scheme such as agencies involved and make up of team responding to calls.

Given the range of study designs included, and the intention of mapping the literature, relevant data have been charted and a descriptive synthesis performed according to Arksey's framework (Arksey and O'Malley, 2005).

Results

After deduplication, there were 9587 records. Full-text of 248 articles were reviewed independently by two authors and 33 studies were included (figure 1).

Figure 1 here

13 quantitative studies, five qualitative studies and 15 mixed method designs were included. Brief details of the study design and aims are listed in Table 1. Of the 33 included studies, nine described schemes based in the USA, 12 in the UK, seven in Australia, four in Canada and one in France.

Table 1 Study characteristics here

Seven studies reported on more than one scheme (Steadman et al, 2000; Forchuck et al, 2010; Horspool, Drabble and O'Cathain, 2016; Reveruzzi and Pilling, 2016; Jenkins et al, 2017; Kane and Evans, 2018; Kane et al, 2018). As a result, data for 47 schemes were extracted. The data extraction table is available from the lead author on request.

Aims of triage schemes

Common aims were to provide an appropriate response to an incident involving someone experiencing or perceived to be experiencing a mental health crisis or potential crisis. Most focussed on improving outcomes for the person with mental ill health by managing the crisis.

Outcomes considered appropriate included referral to mental health services or community services. Six schemes specified the aim to reduce the use of Section 136 detentions (Irvine, Allen and Webber, 2015; Thames Valley Police, 2015; Keown et al, 2016; Jenkins et al, 2017 (both sites); Kane and Evans, 2018 (site b)) and seven to avoid inappropriate involvement in the criminal justice system (Scott, 2000; Saunders and Marchik, 2007; Abbott, 2011; Hollander et al, 2012; Girard et al, 2014; Kirst et al, 2015; Thames Valley Police, 2015). Two studies also specified the triage scheme aimed to make best use of police resources (Scott, 2000; Irvine, Allen and Webber, 2015). There were no differences in the aims between schemes that provided first, second or both types of response. None of the included studies referred to an underpinning theory for the triage scheme.

Table 2 Service design here

Location

The majority of schemes were based in urban areas, but some also included service provision for the surrounding rural area. Where reported, team members were based in police departments (Steadman et al, 2000 (site a); Saunders and Marchik, 2007; Abbott, 2011; The Allen Consulting Group, 2012; Dyer, Steel and Biddle, 2015, Kirst et al, 2015; Reveruzzi and Pilling, 2016 (site c); Reveruzzi and Pilling, 2016 (site h); Reveruzzi and Pilling, 2016 (site i); Jenkins et al 2017 (site b); Kane et al, 2018 (both sites); Kane and Evans, 2018 (site a)), hospitals or health facilities (Olivero, 1990; Hollander et al, 2012; Edmondson and Cummings, 2014; Irvine, Allen and Webber, 2015; Lee et al, 2015; Thames Valley Police, 2015; Reveruzzi and Pilling, 2016 (site d); Reveruzzi and Pilling, 2016 (site f); Reveruzzi and Pilling, 2016 (site g)). Other teams were mobile (Keown et al, 2016; Senker and Scott, 2016; Kane and Evans, 2018 (site b)). One scheme had the police based in the police station and the mental health clinician in the hospital one kilometer away (Evangelista et al, 2016).

Agencies involved

All the schemes except one involved collaborations between police services and mental health services. One of the schemes evaluated by Steadman et al (2000) involved Community Service Officers. Trained in fields such as social work, these officers wear civilian clothing and have a police radio but, while employed by the police, are not sworn officers.

Information sharing practice

18 schemes documented information sharing during the response. Examples of this include the clinical, criminal justice history and risk information shared in the street triage scheme in Oxford (Thames Valley Police, 2015). In the British Transport Police (BTP) scheme, the mental health history of the individual, and where to access a place of safety was shared (Reveruzzi and Pilling, 2016 (site c)). Kane and Evans (2018 (site b)) note that nurses in the command and control room communicate information to the street triage nurses about the incident they are attending.

Other schemes facilitated wider communication between agencies including the A-PACER team and the emergency department in Melbourne (Evangelista et al, 2016) and the police and ambulance telephone communication, as part of the wider West Midlands Police street triage team (Reveruzzi and Pilling 2016 (site a)). In contrast, communication challenges were reported by Hollander et al (2012), this included accessing information about risk for both the police and Mobile psychiatric crisis assessment and treatment, as well as coordinating the response.

Sharing mental health and criminal justice records was mentioned in 15 reports. Where detail of record sharing was given, this could include police and mental health staff having access to both mental health and criminal justice records (Lamb, 1995; The Allen

Consulting Group, 2012). In Oxford, the police command and control records were updated by mental health professionals (Thames Valley Police 2015). In the scheme described by Abbott (2011), information sharing occurred at monthly meetings. In Melbourne, the professionals in the scheme described by Mckenna et al (2015a) had access to databases but shared this on a need to know basis, and while nurses didn't have access to the police database in North Yorkshire, the police did have clearance to share information with them (Reveruzzi and Pilling 2016) (site f).

Table 3 here

Training and service delivery

Training provided to professionals

General training or educational sessions were documented for three of the schemes (Horspool, Drabble and O'Cathain, 2016) (both sites); Reveruzzi and Pilling, 2016 (site i)), while logistical/ technological issues were addressed in other training (Thames Valley Police, 2015; Reveruzzi and Pilling, 2016 (site h)). Community support officers were required to take six weeks of training for their role (Steadman et al, 2000 (site a)).

Mental health and criminal justice related training was also given, for example mental health training for officers part of the Mobile Crisis Intervention Team (MCIT) in Toronto (Lamanna et al 2018) and safeguarding training in the Scarborough, Whitby and Ryedale pilot (Irvine, Allen and Webber, 2015). Crisis intervention training was provided for the police and nurses working on the MCIT teams in the Canadian urban centre described by Kirst et al (2015); while police and health staff working for Derbyshire Street Triage had training in mental health legislation, suicide and self-harm (Reveruzzi and Pilling, 2016) (site e). In other schemes the training outlined was more extensive (Lamb et al, 1995; Reveruzzi

and Pilling, 2016 (site a)), for instance those working for the West Midlands Street Triage scheme were given ‘information around care pathways and available services, risk assessment, background around the Street Triage scheme, the MHA, Mental Capacity Act, and other relevant legislation, and policies and procedures’ (Reveruzzi and Pilling, 2016, p.22).

Some schemes reported that the police officers involved had previous training in mental health (The Allen Consulting Group, 2012; Edmondson and Cummings, 2014). Other schemes were more specific. This included being CIT trained (Forchuck et al, 2000 (both sites); Lord and Bjerregaard, 2014), while officers who worked with the Mobile Crisis Team (MCT) described by Frank, Eck and Ratansi (2004) all had different levels of training in relation to handling mental health related calls including basic, advanced and Mental Health Response Team trained. In the Mobile Crisis Response Team (MCRT) described by Saunders and Marchik (2007), officers had mental health, de-escalation and communication skills training.

As part of the triage service, responding police working with the Framingham Jail Diversion programme had mental health training, and were given information about the operation of the scheme and how to access it (Abbott, 2011). Other schemes also ensured police officers knew when it was appropriate to access the service (Kisley, 2010).

Informal learning was also described as a consequence of many of the schemes (Lamb et al, 1995; Frank, Eck and Ratansi, 2004; Saunders and Marchik, 2007; The Allen Consulting Group, 2012; Edmondson and Cummings, 2014; Irvine, Allen and Webber, 2015; Evangelista et al, 2016).

Triage assessment and decision-making

All of the schemes described some form of assistance or assessment of those experiencing urgent mental health issues or mental health crisis. This was undertaken by the mental health professional(s) in the team, who were the main actors across the schemes. They were also regularly involved in liaison work and organising referrals to other appropriate services. For instance, those working for PACER (The Allen Consulting Group, 2012) use mental health and police databases to inform their strategy when assisting an individual in crisis, including the mental health assessment undertaken by the clinician. While several studies mentioned hospitalisation as an option, the use of mental health legislation by mental health professionals was rarely specified.

In contrast, Police had the power to detain under mental health legislation such as Section 10 of the Mental Health Act 1986, as described in many of the schemes located in Australia, and Section 136 in the UK, or they could arrest. Work often involved ensuring the situation was safe (Lamb, 1995; Scott, 2000; Saunders and Marchik, 2007; Hollander, 2012; Lee, 2015; Furness, 2017). Other work could include liaison between the police and triage team, as well as criminal justice follow ups (Saunders and Marchik, 2007) or support accessing further mental health services for the assessed individuals (Forchuck et al, 2010 (site b)).

A minority of schemes involved other professionals. Examples included paramedics in the West Midlands Street Triage scheme, who helped reduce the need to use Accident and Emergency resources (Reveruzzi and Pilling, 2016 (site a)), and a specialist substance use nurse in the scheme described by Kane and Evans, (2018 (site a)). Liaison and Diversion Staff assisted the Devon and Cornwall Street Triage staff in administrative tasks as well as signposting to other services (Reveruzzi and Pilling, 2016 (site h)). Similarly, the support workers in the North Yorkshire Street Triage scheme also assisted with signposting and

liaison, as well as advising police on the phone (Irvine, Allen and Webber, 2015). In the scheme described by Saunders and Marchik (2007) nurses and a psychiatrist were available to enable the administration of medication.

Post-triage follow up and activity

General follow up of the individual was noted across several schemes (Olivero, 1990; Vogel-Stone, 1999; Scott, 2000; Steadman et al, 2000 (site a); Forchuck et al, 2010 (site b); The Allen Consulting Group, 2012; Edmondson and Cummings, 2014; Girard, 2014; Dyer, Steer and Biddle, 2015). There were various time frames that follow up work occurred in, including 48 hours after an initial response Saunders and Marchik (2007), or within seven days in the Metropolitan Police Street Triage scheme (Reveruzzi and Pilling, 2016) (site d). Other schemes involved multiple follow ups if necessary, occurring every seven days in the West Midlands triage scheme (Reveruzzi and Pilling, 2016) (site a), or up to three times in the Scarborough, Whitby, Ryedale Street Triage pilot (Irvine, Allen and Webber, 2015; Reveruzzi and Pilling, 2016 (site f)).

Follow up could involve contact with other professionals relevant to the individual, such as their General Practitioner (GP) (Irvine, Allen and Webber, 2015; Reveruzzi and Pilling, 2016 (sites a and i)) and/or their mental health team (Thames Valley Police, 2015). Work was also done to ensure the engagement of individuals with services (Reveruzzi and Pilling, 2016 (sites h and i)), for instance the BTP Street Triage nurses called service users about their engagement with services (Reveruzzi and Pilling, 2016 (site c)). In Iowa, MCRT members ensured individuals had contact with community mental health services (Saunders and Marchik, 2007). The professionals on the A-PACER team in Australia could facilitate further planning or referrals if needed (Lee et al, 2015).

Two schemes engaged with the families of service users, this included follow up support for families from the police and clinician from the A-PACER scheme (Lee et al, 2015) and support for relatives after suicide had occurred in the BTP Street Triage scheme (Reveruzzi and Pilling, 2016) (site c).

Discussion

Our scoping review identified 47 mental health triage schemes in 33 studies conducted in OECD countries. The aims of the schemes were generally focused on improving the outcomes for those experiencing or potentially experiencing mental health crisis, which included referral to mental health or community services. However, the reported approaches to mental health triage varied, showing subtle differences in the schemes around the information sharing activities; personnel; training as well as activity during, and after the mental health triage response. This was true even for those schemes implemented using the same scheme and in the same country.

The reporting of the schemes in the studies varied in the level of detail provided, making it difficult to know whether the differences identified are genuine or simply a result of incomplete reporting. With this caveat, we discuss here the findings and implications based on the details reported.

Where information sharing occurred during the triage response, this included the mental health history of individuals. Criminal justice history and risk were also detailed. Arguably, information sharing during the response will be difficult to capture owing to the diverse nature of mental health triage encounters where different types of information sharing will be appropriate. Where records were shared, personnel could have access to records from different disciplines (mental health professionals would have access to criminal justice records and vice versa), or they could share records from their own discipline.

There was variation in the training offered to professionals. This included informal training, education about the scheme itself, as well as more specific mental health and criminal justice training.

A range of personnel were involved in mental health triage. Typically, schemes included mental health professionals, or both mental health professionals and police staff. Additional workers were involved in a small number of schemes, including paramedics, support workers, specialist nurses, liaison and diversion staff and a psychiatrist. The activity of professionals on the teams always included some mental health response or assessment resulting in an action plan, although the range of options available to the individual experiencing mental health issues differed across the schemes, for instance different community services, which were often dependant on the locality of the scheme. Follow up activity could range from ensuring engagement with services, to follow up support for the family.

Such differences between schemes are arguably understandable due to the varied geographic, organisational and institutional settings of the schemes. Moreover, the socio-political and legal differences between countries and regions are also important to consider, as different legislative contexts impact on the legal powers of the professionals, ability to share personal information and the rights of the individual experiencing mental health issues.

The schemes were concentrated in the USA, Canada, the UK and Australia. While this review was limited to OECD countries, these findings do fit with previous observations that there is a paucity of literature regarding police dealings with those experiencing mental illness outside of the USA, UK, Australia and Canada (Moore, 2012). Our searches yielded only one study (Girard et al, 2014) outside of these areas suggesting research is lacking in other OECD countries, or that they may not have specialised mental health triage responses.

Strengths

This review provides a comprehensive overview of the different mental health triage schemes based on the co-responding model. Although the forward and backward reference searching was not completed, we searched a wide range of databases and detailed search strategies to include published and unpublished research literature. Study inclusion criteria and data extraction were undertaken independently by two researchers reducing the risk of bias in selection. The review contributes to the limited literature on mental health triage co-responding models, by providing a summary of the reported differences and similarities across the schemes identified. This may be useful where the introduction of mental health triage initiatives and the research surrounding them are being considered.

Limitations

Included papers were restricted to English language studies located in OECD countries, limiting the wider generalisability of the review. However, the included studies came from North America, Australasia and Europe, so we would argue that the findings remain valid for OECD countries where provision of police and mental health services are likely to be similar.

Our review focused on schemes based on the co-responding model for mental health triage. The alternative CIT model, where police officers are trained to deal with people in mental health crisis to a level where they respond alone, has also been widely implemented, particularly in the USA. However, we feel justified in excluding schemes using this model as a recent scoping review of interagency collaboration identified CIT as the most widely reported pre-arrest diversion model (Parker et al, 2018). Work comparing the cost and effectiveness of the two models could be of value.

A number of limitations arise from the lack of detail in the reports, particularly around delivery of the interventions. Not all of the included studies explicitly referred to mental

health crisis, however all were deemed to suggest there was an urgent need for a mental health response, indicative of mental health crisis. In the included studies, it was not always transparent who initially perceived the mental health issue or contacted the response team. In some of the schemes, sources other than the police could request a response. However, all of the included schemes had a component where mental health professionals responded to individuals in collaboration with the police service. Therefore, it is reasonable to assume incidents will have been perceived at some point to be as a result of mental health issues, before or during the team's response. There was a similar lack of clarity in the reporting of whether the response occurred in the pre-arrest or the post arrest phase. In making a judgement about timing, it is possible some data were missed or inappropriately included. Finally, it is possible that some of these studies may have been describing the same scheme, however, as the aim of this review was to describe schemes reported in the literature not evaluate effectiveness this is not a significant issue.

Implications and future research

There is a need for more detailed and inclusive reporting of the schemes of mental health triage in future research, which has been noted elsewhere (Puntis et al, 2018). Due to the diversity of the schemes this review has identified, it is important that the different nuances of each scheme are sufficiently outlined within the research literature, to give a better understanding of the features of different schemes and how they work as a model. This could enable those interested in commissioning, and developing future services to explore which models exist, and which schemes have been implemented in specific geographical locations and national contexts, similar to their own. It would also enable researchers to more

reliably generalise their results in relation to other research literature, or to theorise why their findings may differ from other models and schemes of mental health triage.

The use of a standardised framework, such as the one suggested by Puntis et al (2018) to compare different schemes, may improve reporting standards in this field of research. This framework proposes a minimum reporting standard including the characteristics of the scheme, as well as documenting the context such as geography and local service provision (Puntis et al, 2018). While it is acknowledged that there are often word count limitations, especially where journal articles are concerned, the information could be put into an appendix or offered by the author on request.

A new typology of mental health triage schemes is warranted which has been recognised before in the context of the UK (Horspool, Drabble and O’Cathain, 2016). Using survey methods, such as Deane et al (1999) and Kirubarajan et al (2018) would enable detailed, specific information to be collected. It may be preferable to develop country specific typologies due to their specific institutional, political and legal contexts. It must however also be considered that even with improved standards of reporting, the nature of the implementation process will not guarantee what is reported always occurs in the day to day practice of mental health triage, due to implementation occurring in a real world context, with numerous contextual influences (Pawson, 2006; Lipsky, 2010).

While we did not undertake a quality appraisal of the included studies, it was identified that few of the studies used high quality methods to demonstrate the effectiveness of mental health triage. As studies lower down the hierarchy of evidence are more prone to introducing bias (Soydan, and Palinkas, 2014) it is clear there is a paucity of high quality, robust study designs in this area of research, as has been found in other reviews (Kane, Evans and Shokraneh, 2017; Puntis et al, 2018). This brings into question whether mental health

triage works and is cost effective. Effectiveness should include qualitative work with the people the triage teams support and the outcomes for them as individuals. In addition work with key stakeholders around implementation, the practicability and suitability of schemes within the local context would be valuable. This could help to understand the facilitators and challenges to implementation such as those associated with interagency working (Parker et al, 2018), differing organisational objectives and system level issues.

Cost effectiveness is an important consideration in the context of the UK where these schemes have been widely implemented, despite cuts to public spending and the move to evidence based policing (Innes, 2010; Bullock and Tilley 2009; Lumsden and Goode, 2016). Developing a robust evidence base for mental health triage interventions is essential to ensure they are of value to police and the individuals experiencing mental ill health who come into contact with them. The complexity of mental health triage interventions should not be a barrier to undertaking controlled work to establish the effectiveness and cost effectiveness of mental health triage (Craig et al, 2008).

None of the reports in this review referred to any underlying programme theory for the scheme. Additionally, owing to the numerous outcomes resulting from a mental health triage 'referral', it is important to consider mental health triage as a complex intervention, embedded in criminal justice and mental health pathways, rather than a distinct service. Realist evaluation, which is a form of theory driven enquiry is particularly appropriate when looking at complex interventions (Greenhalgh et al, 2015). Theory driven evaluations may help to understand specifically what it is about mental health triage that works in its local setting, why, and for whom (Pawson and Tilley, 1997; Shapiro et al, 2015) which would be invaluable for future commissioning.

Conclusion

We identified 33 studies documenting 47 mental health triage schemes based on the co-responding model. There were various approaches to triage including information sharing practices, the personnel involved, as well as the training they received. While the triage responses always included some mental health assessment or plan, the range of services available differed, as did the post triage response offered. While it is acknowledged that the reporting standards for mental health triage schemes must improve, further research is required to understand the workability of schemes within their local context. Additionally, owing to the current push for evidence based policing, in a time of reduced public spending, there is an obligation to ensure that the cost and effectiveness of mental health triage is properly understood.

References

- Abbott, S.E. (2011). *Evaluating the Impact of a Jail Diversion Program on Police Officer's Attitudes Toward the Mentally Ill*. Northeastern University Boston, Massachusetts. PhD.
- Adebowale, V. (2013). *Independent Commission on Mental Health and Policing Report*. Independent Commission on Mental Health and Policing. [Online]. Available at http://news.bbc.co.uk/1/shared/bsp/hi/pdfs/10_05_13_report.pdf [Accessed 16 January 2017].
- Arksey, H. and O'Malley, L. (2005). 'Scoping studies: towards a methodological framework.' *International Journal of Social Research Methodology*, 8(1): 19-32.
- Bradley, L. K. (2009). *The Bradley Report: Lord Bradley's review of people with mental health problems or learning disabilities in the criminal justice system*. London: Department of Health.
- Bullock, K. and Tilley, N. (2009). 'Evidence-based policing and crime reduction'. *Policing*, 3(4): 381–387.

Chappell, D. (2012). Introduction: From Sorcery to Stun Guns and Suicide: the Eclectic and Global Challenges of Policing and the Mentally Ill. In D. Chappell, (Eds). *Police Responses to People with Mental Illness: Global Challenges*. Oxon: Routledge, pp. 1-12.

College of Policing. 2015. *College of policing analysis: estimating demand on the police service*. London: College of Policing.

Coleman, T. G. and Cotton, D. (2010). *Police interactions with persons with a mental illness: Police learning in the environment of contemporary policing*. Calgary: Prepared for the Mental Health and the Law Advisory Committee, Mental Health Commission of Canada.

Craig, P, et al. (2008). Medical Research Council Guidance. Developing and evaluating complex interventions: the new Medical Research Council guidance. *BMJ*.

Curtis, B. H., et al. (2016). Coercive Measures in General Adult and Community Settings. In B. Völlm and N. Nedopil, (Eds). *The Use of Coercive Measures in Forensic Psychiatric Care: Legal, Ethical and Practical Challenges*. Switzerland: Springer Nature, pp.103-134.

Deane, M., et al. (1999). 'Emerging Partnerships between Mental Health and Law Enforcement'. *Psychiatric Services*, 50(1): 99–101.

Department of Health and Concordat Signatories. (2014). *The Mental Health Crisis Care Concordat: Improving Outcomes for People Experiencing Mental Health Crisis*. Department of Health and Concordat Signatories. [Online]. Available at https://s16878.pcdn.co/wp-content/uploads/2014/04/36353_Mental_Health_Crisis_accessible.pdf [Accessed 16 December 2016].

Dyer, W., Steer, M., and Biddle, P. (2015). 'Mental Health Street Triage.' *Policing*, 9 (4). [Online]. Available at: <https://academic.oup.com/policing/article/9/4/377/2362755/Mental-Health-Street-Triage> [Accessed 15 June 2016].

- Edmondson, D. and Cummings, I. (2014). *Oldham Mental Health Phone Triage/RAID Pilot Project*. Edmondson, D. and Cummings, I. [Online]. Available at https://www.crisiscareconcordat.org.uk/wp-content/uploads/2015/01/OLDHAMMH_TRIAGE-2.pdf [Accessed 16 December 2016].
- Evangelista, E., et al. (2016). 'Crisis Averted: How Consumers Experienced a Police and Clinical Early Response (PACER) Unit Responding to a Mental Health Crisis.' *International Journal of Mental Health Nursing*, 25(4): 367–376.
- Forchuck, C., et al. (2010). 'Psychiatric crisis services in three communities.' *Canadian Journal of Community Mental Health*, 29: 73-86.
- Frank, J., Eck, J., and Ratansi, S. (2004). *Mobile Crisis Team/Police Collaboration Evaluation*. Prepared for the Hamilton County Community Mental Health Board and the Health Foundation of Cincinnati. [Online]. Available at: https://www.uc.edu/content/dam/uc/ccjr/docs/reports/project_reports/MCT_Report.pdf [Accessed 4 December 2016].
- Furness, T., et al. (2017). 'Perceptions of Procedural Justice and Coercion during Community-Based Mental Health Crisis: A Comparison Study among Stand-Alone Police Response and Co-Responding Police and Mental Health Clinician Response'. *Policing: A Journal of Policy and Practice*, 11 (4): 400-409.
- Girard, V., et al. (2014). 'Mental Health Outreach and Street Policing in the Downtown of a Large French City.' *International Journal of Law & Psychiatry*, 37(4): 376-382.
- Great Britain (1983). *Mental Health Act 1983*. London: The Stationary Office.
- Greenhalgh, T., et al. (2015). 'Protocol—the RAMESES II study: developing guidance and reporting standards for realist evaluation'. *BMJ Open*, 5(8).

Hartford, K., Carey, R., and Mendonca, J. (2006). 'Pre-arrest Diversion of People with Mental Illness: Literature review and International Survey.' *Behavioural Sciences and the Law*, 24: 845-856.

Her Majesty's Inspectorate of Constabulary. (2014). *Core business: An inspection into crime prevention, police attendance and the use of police time*. Her Majesty's Inspectorate of Constabulary. [Online]. Available at: <https://www.justiceinspectors.gov.uk/hmicfrs/wp-content/uploads/core-business.pdf> [Accessed 4 December 2016].

Her Majesty's Inspectorate of Constabulary, Her Majesty's Inspectorate of Prisons, Care Quality Commission, Healthcare Inspectorate Wales. (2013). *A Criminal Use of Police Cells? The use of police custody as a place of safety for people with mental health needs*. Her Majesty's Inspectorate of Constabulary, Her Majesty's Inspectorate of Prisons, Care Quality Commission, Healthcare Inspectorate Wales. [Online]. Available at: <http://www.justiceinspectors.gov.uk/hmic/publications/a-criminal-use-of-police-cells/> [Accessed 4 December 2016].

Heslin, M., et al. (2016). 'Decision Analytic Model Exploring the Cost and Cost-offset Implications of Street Triage.' *BMJ Open*, 6. [Online]. Available at: <http://bmjopen.bmj.com/content/6/2/e009670> [Accessed 10 January 2017].

Hollander, Y., et al. (2012). 'Challenges Relating to the Interface Between Crisis Mental Health Clinicians and Police When Engaging with People with a Mental Illness.' *Psychiatry, Psychology and Law*, 19(3): 402-411.

Horspool, K., Drabble, S.J., and O'Cathain, A. (2016). 'Implementing Street Triage: a Qualitative study of Collaboration between Police and Mental Health Services.' *BMC Psychiatry*, 16(1):313.

House of Commons Home Affairs Committee. (2015). *Policing and mental health: Eleventh Report of Session 2014–15*. London: The Stationery Office Limited.

Innes, M. (2010). 'A 'Mirror' and a 'Motor': Researching and Reforming Policing in an Age of Austerity'. *Policing*, 4:127–134.

Irvine, A., Allen, L., and Webber, M. (2015). *Evaluation of the Scarborough, Whitby and Ryedale Street Triage Service*. Irvine, A., Allen, L., and Webber, M. [Online]. Available at eprints.whiterose.ac.uk/94059/1/STRfinalreport.pdf [Accessed 4 December 2016].

Jenkins, O., et al. (2017). 'Police Liaison and Section 136: Comparison of Two Different Approaches.' *BJPsych Bulletin*, 41: 76-82.

Kane, E. and Evans, E. (2018). 'Mental health and Policing Interventions: Implementation and Impact.' *Mental Health Review Journal*, 23(2):86-93,

Kane, E., Evans, E. and Shokraneh, F. (2017). 'Effectiveness of current policing-related mental health interventions in England and Wales and Crisis Intervention Teams as a future potential model: a systematic review.' *Systemic Reviews*, 6: 85.

Kane, E., et al. (2018). 'Police Interactions and Interventions with Suspects Flagged as Experiencing Mental Health Problems.' *Criminal Behaviour and Mental Health*, 28(5): 424-432.

Kelly, W. R. (2016). *The Future of Crime and Punishment: Smart Policies for Reducing Crime and Saving Money*. Maryland: Rowman & Littlefield.

Keown P., et al. (2016). 'Too Much Detention? Street Triage and Detentions Under Section 136 Mental Health Act in the North-East of England: A Descriptive Study of the Effects of a Street Triage Intervention.' *BMJ Open*, 6. [Online]. Available at: bmjopen.bmj.com/content/bmjopen/6/11/e011837.full.pdf [Accessed 15 January 2017].

- Kirst, M., et al. (2015). 'Examining Implementation of Mobile, Police Mental Health Crisis Intervention Teams in a Large Urban Center.' *Journal of Mental Health*, 24(6): 369-374.
- Kirubarajan, A., et al. (2018). 'Street Triage Services in England: Service models, National Provision and the Opinions of Police.' *The British Journal of Psychiatry*, 42(6): 253-257.
- Kisley, S., et al. (2010). 'A controlled before-and-after evaluation of a mobile crisis partnership between mental health and police services in Nova Scotia.' *Canadian Journal of Psychiatry - Revue Canadienne de Psychiatrie*, 55(10): 662-668.
- Lamb, R.H., et al. (1995). 'Outcome for Psychiatric Emergency Patients Seen by an Outreach Police-Mental Health Team.' *Psychiatric Services*, 46(12): 1267-1271.
- Lamanna, D., et al. (2018). 'Co-responding Police-mental health programmes: Service User Experiences and Outcomes in a Large Urban Centre.' *International Journal of Mental Health Nursing*, 27: 891-900.
- Lancaster, A. (2016). 'Mobile Crisis Response Teams: the Evidence for Joint Police and Mental Health Responses to People in Mental Health Crisis.' *Mental Health Practice*, 19(10): 20-26.
- Lee, S. J., (2015). 'Outcomes Achieved by and Police and Clinician Perspectives on a Joint Police Officer and Mental Health Clinician Mobile Response Unit.' *International Journal of Mental Health Nursing*, 24: 538-546.
- Lipsky, M. (2010). *Street- Level Bureaucracy: Dilemmas of the Individual in Public Services*. The Russell Sage Foundation: New York.
- Lord, V. and Bjerregaard, B. (2014). 'Helping Persons with Mental Illness: Partnerships between Police and Mobile Crisis Units.' *Victims & Offenders*, 9(4): 455-474.

Lumsden, K. and Goode, J. (2018). 'Policing Research and the Rise of the 'Evidence-Base': Police Officer and Staff Understandings of Research, its Implementation and 'What Works''. *Sociology*, 52(4): 813-829.

McKenna, B., et al. (2015a). 'Police and Mental Health Clinician Partnership in Response to Mental Health Crisis: A qualitative study.' *International Journal of Mental Health Nursing*, 24(5): 386-393.

McKenna, B., et al. (2015b). 'Police and Clinician Diversion of people in Mental Health Crisis from the Emergency Department: A Trend Analysis and Cross Comparison Study.' *BMC Emergency Medicine*, 15(14). [Online]. Available at: <http://bmcemergmed.biomedcentral.com/articles/10.1186/s12873-015-0040-7> [Accessed 15 June 2016].

Mental Health Network NHS Confederation. (2015). *Mental health and policing improving crisis care*. Mental Health Network NHS Confederation. [Online]. Available at <http://www.nhsconfed.org/~media/Confederation/Files/public%20access/Briefing%20279%20Mental%20health%20and%20policing%20final%2026%20Jan.pdf> [Accessed 5 January 2017].

Moore, R. (2012). Current trends in policing and the mentally ill in Europe: a review of the literature. In D. Chappell, (Eds). *Police Responses to people with Mental Illness*. Oxon: Routledge, pp. 42-53.

Olivero, M.J. (1990). 'Police Linkage with Community Mental Health Centers in the Management of Criminal Justice-Mental Health.' *Journal of Police and Criminal Psychology*, 6(2): 8-13.

Parker A, et al. (2018). Interagency collaboration models for people with mental ill health in contact with the police: a systematic scoping review. *BMJ Open.*, 8(3).

- Pawson, R. (2006). *Evidence- Based Policy: A Realist Perspective*. London: SAGE Publications Ltd.
- Pawson, R. and Tilley, N. (1997). *Realistic Evaluation*. London: SAGE.
- Puntis, S., et al. (2018). ‘A Systematic Review of Co-responder Models of Police Mental Health ‘Street’ Triage’. *BMC Psychiatry*, 18: 256.
- Reveruzzi, B. and Pilling S. (2016). *Street Triage: Report on the evaluation of nine pilot schemes in England*. Reveruzzi, B. and Pilling, S. [Online]. <https://s16878.pcdn.co/wp-content/uploads/2016/09/Street-Triage-Evaluation-Final-Report.pdf> [Accessed 5 January 2017].
- Riley, G., et al. (2011). ‘‘A Frightening Experience’’: Detainees’ and Carers’ Experiences of being Detained under Section 136 of the Mental Health Act.’ *Medicine, Science and Law*, 51(3): 164-169.
- Saunders, J.A. and Marchik, B.M.A. (2008). ‘Building Community Capacity to Help Persons with Mental Illness: A Program Evaluation.’ *Journal of Community Practice*, 15(4): 73-96.
- Schaefer Morbito, M., Watson, A. and Draine, J. (2013) "Police officer acceptance of new innovation: the case of crisis intervention teams", *Policing: An International Journal of Police Strategies & Management*, 36(2): 421-436.
- Senker, S. and Scott, M. (2016). *Essex Street Triage evaluation December 2015*. Senker, S. and Scott, M. [Online]. Available at <http://www.essex.pfcc.police.uk/wp-content/uploads/2016/02/Essex-Street-Triage-Evaluation-2015.pdf> [Accessed 4 December 2016].
- Scott, R. L. (2000). ‘Evaluation of a Mobile Crisis Program: Effectiveness, Efficiency, and Consumer Satisfaction.’ *Psychiatric Services*, 51(9): 1153-1156.

Shapiro, G. K., et al. (2015). 'Co-responding Police-Mental Health Programs: A Review. *Administration and Policy in Mental Health and Mental Health Services Research*, 42 (5): 606–620.

Soydan, H. and Palinkas, L.A. (2014). *Evidence-based Practice in Social Work: Development of a New Professional Culture*. Abingdon: Routledge.

Steadman, H.J., et al. (2000). 'Comparing Outcomes of Major Models of Police Responses to Mental Health Emergencies.' *Psychiatric Services*, 51(5): 645-649.

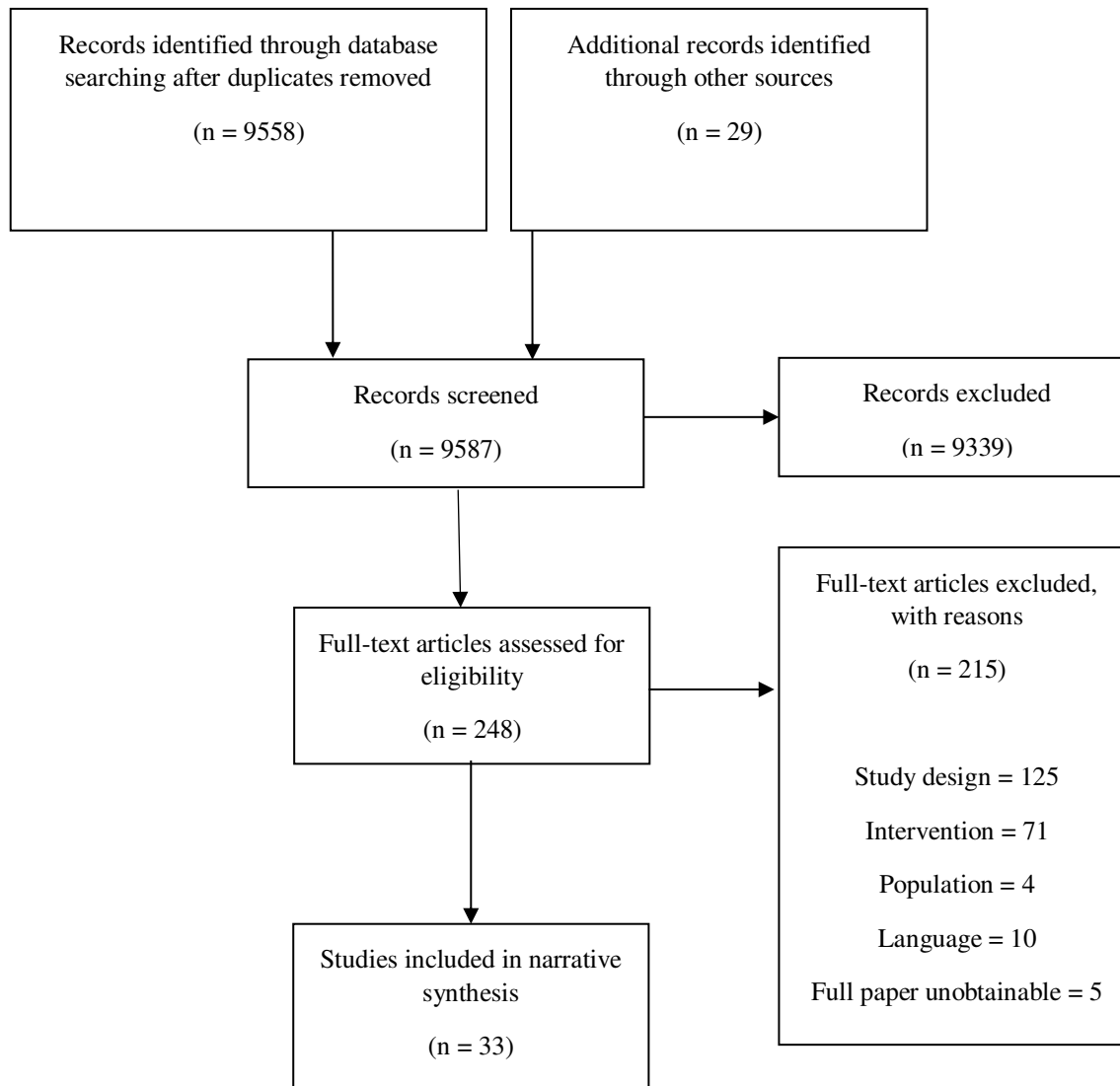
Thames Valley Police. (2015). *Oxfordshire Mental Health Street Triage Pilot*. Thames Valley Police.

The Allen Consulting Group. (2012). *Police, Ambulance and Clinical Early Response (PACER) Evaluation*. The Allen Consulting Group. [Online]. Available at <https://www2.health.vic.gov.au/about/publications/researchandreports/Police-Ambulance-and-Clinical-Early-Response-PACER-Evaluation-Report> [Accessed 4 December 2016].

Vogel-Stone, C.C. (1999). *Outcomes of Mobile Crisis Intervention Services: Impressions from Service Recipients and Service Providers*. California School of Professional Psychology Alameda. PhD.

Watson, A. C. and Fulambarker, A. J. (2012). 'The Crisis Intervention Team Model of Police Response to Mental Health Crises: A Primer for Mental Health Practitioners.' *Best practices in mental health*, 8(2): 71.

Figure 1 Study flow chart



Tables 1-3

Table 1 Study Characteristics

Author (date)	Location (country)	Triage scheme	Study design	Description of methods	Aim of the study
Controlled studies					
Jenkins et al (2017)	Two locations in the UK.	Unnamed police liaison scheme.	Controlled before and after study.	Section 136 data; data regarding the characteristics of those detained, and follow up data were collected in two 6 month periods, before and after the intervention was implemented, across two sites. This allowed comparison of section 136 rates before and after the intervention was implemented, and between sites.	<i>"The aims of this study were to examine changes in and between Ipswich and Norwich regarding section 136 detentions and hospital admission rates of detained individuals."</i> (Jenkins et al, 2017, p.77).
Keown et al (2016)	North East of England.	Street Triage.	Controlled before and after study.	The total Section 136 detentions and Street Triage contacts were calculated for 3-month units and compared to the previous year, allowing the percentage change to be determined.	Looked at the impact of a Street Triage service upon Section 136 detentions in the North East of England.

McKenna et al (2015b)	Victoria, Australia.	Northern Police and Clinician Emergency Response (NPACER).	Interrupted time series.	Over 27 months, the frequency of individuals being placed under Section 10 was calculated as well as subsequent service use by the same individuals. This was used to explore service utilisation before and after the introduction of NPACER, as well as when NPACER was, and was not on duty after implementation.	NPACER was evaluated in terms of its impact upon section 10 use.
Observational studies					
Abbott (2011)	Massachusetts, USA.	Framingham Jail Diversion Programme.	Cross sectional survey.	A survey was used to capture officers' attitudes at one point in time.	Evaluates the impact of a co-responder jail diversion program upon police officer attitudes toward individuals with a mental illness.
Furness et al (2017)	Melbourne, Australia.	Northern Police, Ambulance and Clinical Early Response (NPACER).	Cross sectional study.	The Police Contact and Experience scale tool was used to investigate the experiences of individuals who had come into contact with police officers, as well as those involved in the intervention being investigated (NPACER).	The study aimed "to use the Police Contact Experience Scale (PCES) (Watson et al., 2010) to profile perceptions of procedural justice and coercion of people in community-based mental health crisis" (Furness et al, 2017, p.402).
Heslin et al (2016)	Sussex, Eastbourne, England.	Street Triage.	Uncontrolled before and after study and decision analytic model.	Data regarding Section 136 detentions in the area Street Triage was implemented was compared before and after the implementation of the scheme. This was also compared with the rest of Sussex. Data on the team's response was also utilised. A decision analytic model was populated with the relevant data, this enabled a cost analysis of Street Triage and a normal mental health related response by the police. .	Investigated if Street Triage is effective at reducing s.136 detentions, and if the scheme saves money compared to a regular police response.

Hollander et al (2012)	Victoria, Melbourne, Australia.	Mobile psychiatric crisis assessment and treatment teams (CATT).	Cross-sectional survey.	A questionnaire was distributed to CATT staff and police, this explored their dealings with people with mental illness in terms of knowledge, confidence and interactions with staff from different services. The survey also contained qualitative elements that were analysed thematically and reported as themes.	<i>"Explored how crisis mental health clinicians and police officers experience the service interface to identify perceived challenges to collaboration and possible solutions"</i> (Hollander et al, 2012, p.402).
Kane et al (2018)	Large geographical area in England.	Embedded staff in police contact and control rooms.	Case series.	Data linkage was used to collate data from contact and control rooms, custody, and investigation records. From this the outcomes of individuals both with and without a mental health flag over a 15 month period were analysed.	<i>"Our aims were to examine police interactions with suspects and to measure the immediate effectiveness of police/NHS MH interventions, including liaison and diversion and embedded staff in police contact and control rooms."</i> (Kane et al, 2018, p.1)
Lamb et al (1995)	Los Angeles, USA.	The Systemwide Mental Assessment Response Team.	Case series.	101 consecutive records review with six month follow up.	<i>"Examined whether outreach teams of mental health professionals and police officers could assess and make appropriate dispositions for psychiatric emergency cases in the community, even in situations involving violence or potential violence. The study also assessed whether such teams could reduce criminalization of mentally ill persons"</i> (Lamb et al, 1995, 1267).
Lord and Bjerregaard (2014)	Mecklenburg County, North Carolina, USA.	Mobile crisis unit.	Cross sectional study.	A range of analysis techniques including bivariate and multinomial regression to explore differences in referral sources to a mobile crisis unit.	Examined the relationship between the mobile crisis unit and law enforcement, as well as investigating the outcomes of the referrals to the mobile crisis unit and what influences them.

Scott, (2000)	DeKalb county, Georgia, USA.	Mobile crisis programme.	Case control study.	Retrospective case review with a comparison of calls handled by regular police officers. Officers also completed a survey containing open and closed questions.	Evaluated <i>"The effectiveness and efficiency of a mobile crisis program in handling 911 calls identified as psychiatric emergencies were evaluated, and the satisfaction of consumers and police officers with the program was rated"</i> (Scott, 2000, p.1153).
Steadman et al (2000)	Three sites in the USA.	Three crisis service models, all involving the police.	Case series.	100 police dispatch calls at each site and incident reports.	Compares three models of emergency responses to mental health crisis by the police to understand how often cases identified were addressed without arrest occurring.
Vogel-Stone (1999)	Berkeley, USA.	Berkeley Mental Health Mobile Crisis Team (MCT).	Cross sectional survey.	Questionnaire administered over the phone or in person to those who had used the service at follow up.	Investigates a mobile crisis intervention team in terms of efficiency and looked at the impact on the community it was situated in.
Qualitative studies					
Evangelista et al (2016)	Melbourne, Australia.	Alfred Police and Clinical Early Response (A-PACER).	Qualitative design.	Semi-structured interviews, and a demographic questionnaire was used before interviews to capture participant characteristics.	Investigated how people experienced A-PACER, if it differed from their other experiences of crisis responses, and their thoughts on teamwork between police and mental health professionals. Finally they explored how A-PACER could improve.
Forchuck et al (2010)	Southern Ontario, Canada.	Three crisis service models, all involving the police.	Qualitative design.	Focus group interviews and participant observation.	<i>"The purpose of this study was to compare these three different models of crisis programs related to the role of police and mental health crisis workers, how the programs operate, and their impact on the perceived needs of mental health consumers, their families, and service providers"</i> (Forchuck et al, 2010, p.75)
Horspool, Drabble and O'Cathain (2016)	Two locations in the UK.	Street Triage.	Qualitative design.	Semi-structured interviews.	Looked at the operational aspects of Street Triage and what facilitated/ blocked the implementation of the service.

Kirst et al (2015)	An urban center in Canada.	The Mobile Crisis Intervention Team.	Qualitative design.	Semi-structured interviews and focus groups. Demographic information also collected.	<i>"to understand processes of implementation of a multi-site MCIT program in a large urban center and to identify program strengths and challenges, as well as levels of satisfaction in service delivery"</i> (Kirst et al. 2015, p.369).
McKenna et al (2015a)	Melbourne, Australia.	Northern Police and Clinician Emergency Response (NPACER).	Qualitative design.	Semi-structured interviews.	Understand the perceptions of stakeholders in terms of how NPACER can deescalate behavioural disturbance and increase the use of services for those in mental health crisis.
Mixed methods studies					
Edmondson and Cummings (2014)	Oldham, Manchester, England.	Oldham Phone Triage/RAID Pilot Project.	Mixed methods.	Quantitative descriptive analysis of data collected from the pilot scheme, calls and referrals to the police. Qualitative semi-structured individual and group interviews surrounding police staff experiences, opinions and how the service could develop. The research literature was also reviewed to inform the design and delivery of the evaluation and report.	<i>"The purpose of the evaluation is to assess the impact of the Oldham Phone Triage/RAID Pilot Project in relation to:</i> <i>1. Decision making, actions and outcomes from mental health referrals made by police officers to the Phone Triage Service. 2. Delivery of appropriate, timely and improved outcomes for individuals, families and communities. 3. Use and management of s.136 orders. 4. Broader learning from the pilot for the police service, in relation to improving complex and challenging decision making in the context of policing and mental health."</i> (Edmondson and Cummings, 2014, p.10).

Girard et al (2014)	Marseille, France.	No name, paper describes a police department–mental health outreach team partnership.	Mixed methods.	Reports of interactions involving outreach team, police and people who presented with mental disorders and who were homeless. Separate focus groups with police, outreach team and homeless persons; and semi-structured interviews with homeless persons, some of whom were peer workers.	Understand the relations between police, outreach team and homeless individuals experiencing mental distress, as well as how the intervention could be improved.
Irvine, Allen and Webber (2015)	Scarborough, Whitby and Ryedale, North Yorkshire, England.	Street Triage.	Mixed methods.	This included analysis of routinely collected data and qualitative interviews and focus groups.	Evaluate a Street Triage pilot across Scarborough, Whitby and Ryedale.
Kisley et al (2010)	Nova Scotia, Canada.	Integrated mobile crisis service.	Mixed methods.	Controlled before and after study using routinely collected data from health, police and emergency health service data bases, as well as qualitative focus groups and interviews.	Evaluated the effect of the service and how the service changed over time, as well as stakeholder perceptions of the service.
Olivero (1990)	Southern Illinois, USA.	Linkage agreement between law enforcement agency and a community mental health center.	Mixed methods.	Observations and note taking of mental health emergencies, data from the crisis assessment form, police reports and activity notes.	Explored a linkage agreement between a mental health center and law enforcement agencies, specifically this study looked at the utilisation of the service and the types of contact. In addition, the resolution of the contacts were explored as was the understanding of officers.

The Allen Consulting Group (2012)	Victoria, Melbourne, Australia.	Police, Ambulance and Clinical Early Response (PACER).	Mixed methods.	Case control, consultations with stakeholders and some descriptive data. The evaluation included a review of policy and program documentation such as protocols and legislation. Data sets: PACER Activity sheets, Mental Disorder Transfer, User of Force, Victorian Emergency Minimum Dataset, and Victorian Ambulance Clinical Information System. Consultations: focus groups, telephone interviews, group discussions and a series of meetings with key stakeholders. There was also some cost-effectiveness work done comparing PACER with usual service provision.	<i>"This project evaluated the effectiveness and efficiency of the PACER project in managing and resolving mental health crises in the community over a 16 month period"</i> (The Allen Consulting Group, 2012, p.v).
Quantitative and qualitative elements to study					
Dyer, Steel and Biddle (2015)	Cleveland, England.	Street Triage.	Multi methods.	Interviews, case note review and analysis of routinely collected administrative street triage data.	To explore the implementation of Cleveland Police's pilot Street Triage service.
Frank, Eck and Ratansi (2004)	Cincinnati, USA.	Mobile Crisis Team (MCT).	Multi methods.	Police division 316 forms, surveys, interviews and analysis of police call data.	Examined if a Mobile Crisis Team improved the care of those experiencing mental health crisis and whether Cincinnati Police Division and the local criminal justice system benefits.
Kane and Evans (2018)	England.	Two mental health and policing interventions.	Multi methods.	Interviews, focus groups and quantitative analysis of NHS and Police data.	To examine three interventions relating to police interactions with individuals experiencing mental distress.

Lamanna et al (2018)	Toronto, Canada.	Mobile crisis intervention team (MCIT).	Multi methods.	Analysis of administrative data and semi-structured interviews with service users about their experiences of the intervention.	The study had three main aims, which were to understand " <i>what are the rates of injury and arrest in co-responding team interactions at a large urban centre? Second, how do co-responding teams compare to police-only teams in response times, escorts to ED, and ED handover times? Third, how do service users experience corresponding and police-only team interactions?</i> " (Lamanna et al, 2018, p.892).
Lee et al (2015)	Melbourne, Victoria, Australia.	Police and Clinical Early Response (A-PACER).	Multi methods.	A-PACER activity sheets (these were completed by a police officer after a contact), and a questionnaire (open and fixed responses). Open responses analysed and presented thematically.	" <i>...to assess whether similar outcomes in relation to avoidance of ED transportation could be achieved in a different geographical location, and to collect experiential data from police officers and mental health clinicians who encountered A-PACER about the perceived benefits and challenges of delivering a joint police-mental health response unit</i> " (Lee et al, 2015, p.539).

Reveruzzi and Pilling (2016)	9 Pilot sites in the UK.	Street Triage.	Multi methods.	Aggregated quantitative data and synthesis of qualitative findings from the models of Street Triage studied 3 phased evaluation: "1. A description of the operation of the nine Street Triage pilot schemes. 2. An exploration and analysis of the quantitative data available on the operation and outcome of the Street Triage teams. 3. An analysis of available qualitative data from interviews with health and police staff, service users and family members involved in the pilot schemes, supplemented by additional interviews undertaken specifically for this project." (Reveruzzi and Pilling, 2016, p.2)	Evaluation of the effectiveness of 9 Street Triage schemes in England.
Saunders and Marchik(2007)	Polk County, central Iowa, USA.	Mobile Crisis Response Team.	Multi methods.	Survey and qualitative interviews.	To describe the 'capacity building efforts' (p.76) of developing a jail diversion program and outline the results of an evaluation of the program (Saunders and Marchik, 2007).
Senker and Scott (2016)	Essex, England.	Street Triage.	Multi methods.	Semi-structured interviews with police, service users and nurses working in the Street Triage Team. Observational work of Street Triage shifts and case study examples. Quantitative before and after study. Cost analysis and descriptive data.	Evaluate the Essex Mental Health Street Triage scheme to inform the development of the service and how to ensure resources are used efficiently.
Thames Valley Police (2015)	Oxford, England.	Street Triage.	Multi methods.	Descriptive data compared with control area. Qualitative surveys, focus groups, interviews with range of stakeholders.	Evaluate a Street Triage pilot in Oxfordshire in relation to the experiences of service users, the relationships between professionals and the cost and time implications.

Table 2 Service design

	Name of the scheme	Agencies involved	Geographical area covered	Hours of operation	In person and/or phone response	Who can request the team	Process of deployment	Information sharing	Mode of transport
First responders									
Forchuck et al (2010)b	Site C of the three communities evaluated in this study.	Not stated.	Southern Ontario: urban and rural population 109,600.	Not stated.	Goes to the incident.	Police officers.	Police dispatch receive the call and assign it to an officer.	Not stated.	Unmarked car.
Frank, Eck and Ratansi (2004)	Mobile Crisis Team. (MCT)	Hamilton County Community Mental Health Board and the Cincinnati Police Division.	Cincinnati Police division district 1 and 5.	Not stated.	At the scene.	Police.	Respond to 'code 9' calls indicating mental illness.	Not stated.	Not stated.
Keown et al (2016)	Street Triage.	Northumbria Police. The NHS mental health service provider.	Northumberland, Tyne and Wear Mental Health Foundation Trust: focus on South of Tyne, Sunderland; an urban locality.	7 days/week, 10am - 3am.	In person at the scene.	Not stated.	Not stated.	Not stated.	Not stated.

Kisley et al (2010)	Integrated mobile crisis service.	Halifax Regional Police, Emergency Health Services and mental health services.	Capital District Health Authority (telephone access); Halifax Regional Police (mobile crisis team).	24 hours/day.	24 hour telephone support line; attended in person.	Police officers.	Clinician manages calls; missed call returned within 30 minutes.	Not stated.	Not stated.
Reveruzzi and Pilling (2016)a	The West Midlands Police Street Triage scheme.	CCG: Birmingham Cross City Local, NHS: Birmingham and Solihull Mental Health Trust.	Birmingham and Solihull, population 1,300,000.	Seven days/week, 10am - 2am.	Telephone advice and on scene.	Police and ambulance control staff.	Deployed via 999 through ambulance or police control room workers.	"Improved telephone access for police and ambulance information exchange" (Reveruzzi and Pilling, 2016, p.76).	Team: ambulance. Detained person: police car, triage vehicle or ambulance.
Saunders and Marchik (2007)	Mobile Crisis Response Team - Diversion Programme.	Eyerly-Ball Community Mental Health Services and De Moines Police Department. Funded by Polk County Health Services.	Polk County (includes Des Moines and 9 smaller communities and rural areas), population 375,000.	Evenings and weekend, 4 days/week; expanded to 7 days/week for 21 hours/day.	On scene.	Police officers.	Police Department contact the team; from outside Des Moines, police dispatch contacts Des Moines dispatch who contact the team.	Information sharing between the members of the MCRT. Police liaison officer facilitates communication between the police and the MCRT.	Two vans available.
Second responders									

Edmonds and Cummings (2014)	Oldham Phone Triage/RAID Pilot Project.	Greater Manchester Police and Pennine Care Foundation Trust.	Oldham, UK.	24 hours/day.	24 hour phone line.	Police officers.	Police officers contact a dedicated 24 hour telephone number for professional advice.	Phone discussion at the scene between police and mental health professional. Information exchange about the individuals mental health	Not stated.
Evangelista et al (2016)	Alfred Police and Clinical Early Response (A-PACER).	A-PACER, Police service.	Not stated.	7 days/week, 2-10pm.	Face to face.	First response police, mental health clinicians or 'other' services e.g. ambulance service, 000 dispatch.	The team gets referrals from a first response team (police who initially attend the scene) where mental health issues are suspected.	A-PACER team share information about the incident with the Emergency Department.	Car for A-PACER response, police van for emergency department transport.
Furness et al (2017)	Northern Police, Ambulance and Clinical Early Response (NPACER).	The Area Mental Health Service and Victoria Police division.	575,000 individuals in Melbourne.	3pm to 11.30pm, 7 days per week.	At the scene response.	Police.	Attend after initial an assessment from the attending officers that the situation is appropriate to attend.	Not stated.	Victoria Police Van.
Heslin et al (2016)	Street Triage.	Sussex Partnership NHS Foundation Trust, Sussex Police.	Eastbourne, Sussex, UK.	Wednesday to Friday, 4.30pm - midnight. Saturday to Sunday from 9am	Attend incidents: if team unavailable telephone	Call handlers.	Call handlers screen the calls and assign incident to the team.	Not stated but both team members physically attend incidents together.	Unmarked police car.

				to midnight	advice offered.				
Irvine, Allen and Webber (2015)	Street Triage.	Tees, Esk and Wear Valleys NHS Foundation Trust (TEWV) and North Yorkshire Police.	900 square miles.	Daily 3pm - 1am; changed to 10:30 am - 10.30 pm; changed again to Thursday to Sunday 10.30am - 10.30pm.	Face to face; and telepho ne advice.	Police officers contact directly or via control room. Triage team monitor police radio and respond. Outside agencies refer via officers at incident, control or the safer neighbourhoo d team.	Street Triage team contacted then the Street Triage team would attend the incident .	Street Triage team had Police radios and access to the police “airwave”. Landline and mobiles if needed. Not clearly stated if this was to ‘base’ and/or those at the incident. Face to face communication at scene. Triage team had access to mental health records and police to criminal justice records.	Unma rked car with police radio and speake r but no blue light.
Jenkins et al (2017)a	Unnamed police liaison scheme.	Commissioning for Quality and Innovation funded pilot scheme including Norfolk and Suffolk NHS Foundation Trust and Suffolk Constabulary.	442,000 individuals (Office for National Statistics, cited in Jenkins et al 2017, p.77).	2pm till midnight, 7 days per week.	In person and phone respons e.	Police.	Team are the first point of contact for front line police attending incidents that may have a mental health element.	Not stated.	Dedic ated police car.

Jenkins et al (2017)b	Unnamed police liaison scheme.	Police service and NHS Trust covering Norwich.	483,000 individuals (Office for National Statistics, cited in Jenkins et al 2017, p.77).	8am till 10am, 7 days per week.	Phone advice.	Local police.	Not stated.	Not stated.	Not stated.
Kirst et al (2015)	Mobile Crisis Intervention Team.	Police services and partnering hospitals in the area.	Multiple police divisions and partnering hospitals across an urban centre.	Not stated.	Goes to the call.	First responder police units; less frequently community agencies, families of the individual in crisis, as well as service users and radio calls.	Police communication department dispatches the team to join first responders.	Not stated.	Marked police car.
Lamb et al (1995)	The Systemwide Mental Assessment Response Team.	Los Angeles County Department of Mental Health and the Los Angeles Police Department. Los Angeles County Department of Mental Health fund the mental health professionals.	<i>"the team responds to five inner-city areas of the department's 18 geographic areas"</i> (Lamb et al, 1995, p.1268).	16 hours/day, 7 days/week.	Goes to the incident.	Police.	Situation is reported to police department mental health evaluation unit; watch commander decides whether to refer team.	Information sharing during the response. Police officer had access to mental health records; mental health professional had access to the criminal justice records (of those referred). Protocols for data protection in place.	Police vehicle.

Lee et al (2015)	Alfred Police and Clinical Early Response (A-PACER)	Victoria Police division and public mental health services, funding came from the Victorian Law Enforcement Drug Fund.	The catchment of the Public mental health service and the Victoria Police division.	2pm - 10pm.	Onsite and telephone.	Police first responders, crisis assessment team clinicians, emergency service dispatch, A-PACER police monitor police radio and dispatch team.	Clinician decides on response to first responder request. A-PACER Police officer picks up clinician on the way to an incident.	Information sharing during assessment often occurs with the A-PACER officer who is expected to keep health information confidential.	Not stated.
Lord and Bjerregard (2014)	Mobile crisis unit.	Division of Mental Health, Developmental Disabilities, and Substances Abuse Services, police and law enforcement.	Mecklenburg county, estimated population 1,000,000.	7 days/week, 24 hours/day.	On scene and over the phone.	Calls came from law enforcement, other sources include person with mental illness, crisis line, hospitals, social services and schools.	Not stated.	Not stated.	Not stated.
McKenna et al (2015a)	Northern Police and Clinician Emergency Response (NPACER).	Victoria Police and Northern Area Mental Health	Metropolitan Melbourne which has a population of 575,000 individuals (Australian Bureau of Statistics, cited in McKenna et al, 2015a).	7 days/week 3pm - 11.30pm.	In person.	Police.	Initial responding team initiate deployment.	Each professional had access to databases. Information was shared on a need to know basis, restricted by the law. In person communication during the response.	Not stated.

McKenna et al (2015b)	Northern Police and Clinician Emergency Response (NPACER).	Melbourne Health, Northern Health, North Western Mental Health and Victoria Police support the team.	Two police divisions, 600,000 people (Metropolitan Planning Authority, cited in McKenna et al, 2015b).	7 days/week 3pm - 11.30pm.	In person.	Police	Emergency 000 call resulting from a crisis in the community results in an initial police response followed by the NPACER team.	Not stated.	Marked Victoria Police vehicle.
Olivero (1990)	Linkage agreement between law enforcement agency and community mental health center.	Mental health center and police and sheriffs departments.	Two county areas.	Not stated.	On site.	Law enforcement agency.	As requested by the law enforcement agency.	Not stated.	Not stated
Reveruzzi and Pilling (2016)b	Thames Valley Police Street Triage scheme.	CCG: Oxfordshire. NHS: Oxfordshire NHS Foundation Trust. Funded by the Department of Health.	Oxfordshire, population 666,100.	7 days/week, 6pm - 2 am and 24 hour advice line.	Face to face in the city; telephone for rest of county and out of hours of city street triage.	Police.	Not stated.	Information sharing when relevant.	Team - Patrol car. Detained person - police car or ambulance.

Reveruzzi and Pilling (2016)c	British Transport Police Street Triage scheme.	The NHS nurses (3 band 6 and 1 band 7) were funded by the Department of Health and the British Transport Police funded the 1 police officer and 3 British Transport Police Staff.	Railways and light-rail systems in the Pennines, Midlands, South West and Wales.	Monday to Sunday, 9am-9pm.	Phone advice.	British Transport Police.	Not applicable.	Nurses provide information about the individuals mental health history and places of safety.	If detained individuals were transported by a police car or ambulance.
Reveruzzi and Pilling (2016)d	The Metropolitan Police Street Triage Scheme.	CCG/s: Croydon, Southwark, Lambeth and Lewisham. NHS: South London and Maudsley NHS Trust . Mayor's Office for Policing and Crime (MOPAC) and the Metropolitan Police Service. Funded by the Department of Health.	Four South London boroughs, population 1,288,727.	24 hour telephone helpline. 7 days per week.	Telephone advice; on scene if needed.	Police officers.	Nurses contacted by police officers.	Information sharing between professionals.	If detained individuals were transported by a police car or ambulance.

Reveruzzi and Pilling (2016)e	The Derbyshire Police Street Triage scheme.	CCG/s: County South and Erewash, NHS: Derbyshire Healthcare Foundation Trust. The nurses were funded by the Department of Health and the officer was funded by the Constabulary.	D Division – Derby City, South Derbyshire and Erewash, population 779,000.	Seven days/week, 4pm - 12am. 8am - 4pm telephone advice line.	Telephone advice to all areas. On scene support for some areas.	Police	Team is contacted via police radio, triage team dedicated phone line or the police live incident reporting network.	Nurses preferred to be located near the crisis, liaison or AMHP duty teams as cases could be discussed efficiently and information could be accessed. Access to 3 databases, 2 police and 1 health.	Patrol car. If detained individuals were transported by a police car or ambulance.
Reveruzzi and Pilling (2016)f	The North Yorkshire Police Street Triage scheme.	CCG/s: Scarborough and Ryedale, and Hambleton and Richmondshire. NHS: Tees, Esk and Wear Valleys Foundation Trust . Funded by the Department of Health. No police presence on the team.	Scarborough, Whitby and Ryedale, population 114,000.	Initially seven days/week from 3pm - 1 am but changed to 10.30am - 10.30pm.	Telephone and on scene.	Police.	Police control room contacts team or direct calls to triage team mobile.	Police and nurses direct access to their local patient information systems. Nurses did not have access to the police record system, but police had clearance to share information with the triage team. Information sharing also occurred at weekly operation meetings.	If detained individuals were transported by a police car or ambulance.

Reveruzzi and Pilling (2016)g	The West Yorkshire Police Street Triage Scheme. Extended pilot renamed to Mental Health Crisis Triage.	CCG/s : Leeds North, Leeds South and East, and Leeds West. NHS: Leeds and York Partnership Foundation Trust . Funded by the Department of Health and later on Leeds Clinical Commissioning group.	Leeds, population 848,140.	Seven days/week, 3pm - 1am ; referrals accepted 24 hours/day .	On scene and telephone.	Front-line police officers, transport police and ambulance service.	Information gathered via telephone to decide if face-to-face assessment required. Team aimed to be on the scene within 45 minutes; if not triage intervention conducted over the phone.	Not stated.	If detained individuals were transported by a police car, triage vehicle or ambulance.
Senker and Scott (2016)	Street Triage.	South Essex Partnership University NHS Foundation Trust (SEPT) and North Essex Partnership University NHS Foundation Trust (NEP), Essex Police.	County of Essex.	Seven days/week, 6pm -2 am (originally Friday to Sunday, 6pm - 2am and phone Monday to Thursday).	On scene (and telephone advice in the initial pilot).	Police.	Police pick up nurse at start of shift. Control room contacts team to attend incidents.	Discuss mental health and criminal justice information during response.	Marked police vehicle.

The Allen Consulting Group (2012)	Police, Ambulance and Clinical Early Response (PACER).	Department of Human Services and the Victoria Police.	Local Government Area boundaries of Glen Eira, Kingston and Bayside.	3pm - 11pm 7 days/week.	On site and telephone.	Police and the ambulance service via the police.	First responder requests PACER.	The individuals on the PACER team are able to access information from both mental health services (CMI) and police (LEAP) database.	Car. Ambulance have the primary responsibility for transporting the person experiencing crisis unless there are security concerns, in which case the police provide transport.
Both first and second responders									
Abbott (2011)	Framingham Jail Diversion Programme.	Framingham Jail Diversion Programme and Framingham Police Department.	Framingham, population 66,786. Quincy	4pm - 12am	Both phone and on scene	911 calls and calls for service.	Deployed by Framingham dispatchers.	Information sharing during monthly meetings between the Framingham Police	Not stated.

			95,061 individuals.		assistance is provided.			Department (including individuals from the Chiefs office, patrol staff and administration) and Jail diversion programme (clinicians and the director).	
Dyer, Steel and Biddle (2015)	Street Triage.	Cleveland Street Triage, Cleveland Police, funded by Tees, Esk and Wear Valley NHS Foundation Trust.	Not stated.	12pm - 12am.	Attends the incident.	Nurses monitor police calls or contacted directly by police.	Respond to incident from monitoring police calls or direct police request.	Not stated.	Not stated.
Forchuck et al (2010)a	Site A of the three communities evaluated in this study.	Not stated.	Southern Ontario, Urban population of 531,000.	Not stated.	Goes to the incident.	Not stated.	Not stated.	Not stated.	Not stated.
Girard et al (2014)	A police department-mental health outreach team partnership.	Mental Health Outreach team which is based in the public assistance division at the hospital of Marseille, and the National Police department of Marseille .	Marseille, population 800,000	Not stated.	In person, email and telephone.	Police or outreach team.	Not stated.	Information sharing between professionals .	Not stated.

Hollander et al (2012)	Mobile psychiatric crisis assessment and treatment teams (CATT).	Police from St Kilda Road, Prahran and South Melbourne Victoria Police Station and CATT team attached to Alfred Hospital.	Not stated.	Not stated.	On scene and telephone.	Police.	Not stated.	Not stated but communication challenges reported from CATT and police workers.	Not stated.
Horspool, Drabble and O’Cathain (2016)a	Street Triage.	The single police force running the scheme and two mental health trusts.	146.8 square miles, population 138,400.	Wednesday, Friday and Saturday, 5pm - 1 am.	In person.	Not stated.	Not stated.	Information sharing occurred.	Joint response car.
Horspool, Drabble and O’Cathain (2016)b	Street triage.	The single police force running the scheme and two mental health trusts.	1622 square miles, population 1,759,800 (service covered some of this location).	Thursday, Friday and Saturday, 6pm - 2am.	In person and phone response.	Not stated	Mental health worker handles incoming calls from individuals who need mental health support.	Information sharing occurred.	Joint response car
Kane and Evans (2018)a	Command and Control Room Triage Service.	Police and related service provider.	Two proximate constabularies.	Worked late afternoon and evening.	Both at the scene (to slow time incidents) and telephone	Those experiencing mental health issues, or those concerned about them. Police.	Not stated, but help triage the calls to police. Planned assessments with the police.	Not stated.	Not stated.

					respons e.				
Kane and Evans (2018)b	Street Triage (with nurses embedded in the command and control room).	Police and related service provider.	Two proximate constabularies.	Street triage from 2pm till 11.30pm. 7 days per week.	At scene (Street Triage) and phone response (command and control room nurses).	Police.	Not stated.	Nurses in the command and control rooms communicate information to front line street triage nurses about the incidents they are attending.	Triage car.
Kane et al (2018)a	Embedded staff in police contact and control rooms.	Police service and NHS.	Neighbouring police forces that were organisationally related. Both rural and urban populations. Situated over a large geographical area in England.	Not stated.	In person to police staff and over the phone (implied).	Police.	Not stated.	Not stated.	Not stated.

Kane et al (2018)b	Embedded staff in police contact and control rooms.	Police service and NHS.	Neighbouring police forces that were organisationally related. Both rural and urban populations. Situated over a large geographical area in England.	Not stated.	In person to police staff and over the phone (implied).	Police.	Not stated.	Not stated.	Not stated.
Lamanna et al (2018)	Mobile crisis intervention team (MCIT).	Collaboration between the police services and 6 hospitals in Toronto.	Collaboration between the police services and 6 hospitals in Toronto.	Not stated.	At the scene response.	Police.	Attend after first responding officers declare the situation is appropriate to attend and is low risk in terms of violence. May also respond when an incident is heard over the police radio.	Not stated.	Not stated.
Reveruzzi and Pilling (2016)h	The Devon and Cornwall Police Street Triage scheme.	CCG: New Devon, NHS: Devon Partnership NHS Trust. Funded by the Department of Health.	Devon, Exeter and Plymouth, population 1,135,700.	From January 2015 extended to Monday to Friday, 9am to 5pm.	Devon: telephone. Exeter and Plymouth: face to face and telephone.	Police officers.	Nurses attended incidents in person if thought necessary and practical.	The mental health professionals in Devon can access information through police and health care IT systems.	If detained individuals were transported by a police car or ambulance.

Reveruzzi and Pilling (2016)i	The Sussex Police Street Triage scheme.	CCG: Coastal Community Healthcare which covers Eastbourne, Hailsham and Seaford. NHS: Sussex Partnership Foundation Trust. Funded by the Department of Health.	Eastbourne, population 101,547.	Wednesday to Sunday, 4.30pm - 12.00 am. Saturday and Sunday from 9am - 4pm	Telephone and on scene.	Police or the public.	Not stated.	Information sharing when relevant.	Patrol car and if detained individuals were transported by a police car or ambulance.
Scott, (2000)	Mobile Crisis Programme.	DeKalb Community Service Board and the county public safety department.	Dekalb county: metropolitan area, population 400,000.	3pm-10.30pm 7 days/week.	On scene, telephone and police radio advice.	Police and community mental health center crisis help line.	Response initiated by 911 calls for a psychiatric emergency, requests by initial response police team or the crisis hotline of DeKalb County community mental health center.	Not stated.	Not stated.
Steadman et al (2000)a	Community service officer team.	Community service officer team employed as part of the Birmingham Police Department.	Birmingham Police Department, Alabama.	Monday to Friday 8am - 10 pm. All other times covered by on-call rota.	At the scene.	Not stated.	Community support officers carry police radios.	Not stated.	Unmarked car.

Steadman et al (2000)b	Knoxville mobile crisis unit.	The Knoxville Police Department and Knoxville mobile crisis unit.	Five counties, population 475,000	24 hours/day	On scene and telephone	The community, emergency rooms, the police and local jail.	Not stated.	Not stated.	Not stated.
Thames Valley Police (2015)	Street Triage.	Thames Valley Police and Oxford Health NHS Foundation Trust.	Mobile unit: Oxford City area. Telephone support: Oxfordshire county.	6pm-2am, 7 nights/week. 24 hour advice line.	City: Face to face and telephone. County : telephone with occasional face to face. Outside hours of operation: telephone.	Police officers and the force control room.	Deployed to incidents by control room following risk assessment by control room sergeant, or deployed as second response.	The individuals clinical, criminal justice history and risk was shared. Mental health professional took information from RiO (recording system) and use this as background information and record it on their triage form. Mental health professionals updated command and control records directly.	Police car with a blue light.
Vogel-Stone (1999)	Berkeley Mental Health Mobile Crisis Team.	The Department of Mental Health fund the project . Berkeley Police Department.	Berkeley and Albany, population 122,000.	10.30am to 11pm, 365 days/year.	On scene and telephone.	"police officers, hospital emergency rooms, the fire department, community agencies, and the public" (Vogel-Stone, 1999, p.16).	Teams use police radios and are contacted via the police dispatcher or by telephone.	Not stated.	Not stated.

Table 3 Personnel and delivery

	Name of the scheme	Professionals involved and their skill set	Training provided to professionals	Activity of professionals involved	How decisions are made at the scene
First responders					
Forchuck et al (2010)b	Site C of the three communities evaluated in this study.	24 front line police officers; 1 psychiatric registered nurse. An officer and nurse respond together. Crisis nurse in emergency room.	Officers have Crisis Intervention Team training.	Team respond to mental health crisis and put individuals in contact with mental health services. Registered nurses can directly admit individuals to the hospital; un-uniformed police provided transportation and access mental health services for individuals.	Not stated.
Frank, Eck and Ratansi (2004)	Mobile Crisis Team (MCT).	MCT professionals collaborate with the police.	Not specific to MCT model. Different levels of training for officers handling mental health calls (basic, advanced and Mental Health Response Team trained). Informal learning for police around identifying mental illness.	MCT staff handle mental health related calls; assess the individual experiencing mental health issues. Individual could be taken to hospital or a criminal justice response would be used.	Criminal justice response.
Keown et al (2016)	Street Triage.	Dedicated police officer and a mental health nurse working together.	Not stated.	Not stated.	Not stated.
Kisley et al (2010)	Integrated mobile crisis service.	Clinician and police officer(s) responded together. Ambulance attend if necessary.	Police officers given information about how to contact and request the team.	The service provides short term management of mental health crisis. Referral to other services is facilitated.	Not stated.
Reveruzzi and Pilling (2016)a	The West Midlands Police Street Triage scheme.	3 Paramedics, 1 sergeant, 6 constables, 4 nurses with Band 6 training made up the team. Paramedic; nurse and officer deployed.	5 days of training before implementation. Information included policy and procedures; mental health legislation; the model of triage and referral routes.	A referral pathway was agreed for the individual including substance use and crisis pathways. Individuals GP informed. Paramedic helped reduce inappropriate A and E admissions. Approved Mental Health Professional (AMHP) could be utilised. When detained (s.135/136) a plain ambulance was used.	Police legal powers. Tripartite led service-risk based model where all involved staff signed off decisions about the referral.

Saunders and Marchik (2007)	Mobile Crisis Response Team - Diversion Programme. (MCRT).	Registered Nurses; mental health professionals; Licensed Independent Social Workers; a case manager and a police liaison officer. Other law enforcement departments have a liaison officer that is part time.	The police have a mental health element to their police training, this includes de-escalation and communication skills. Informal learning through the model.	Health professional conducts a mental health assessment. Outcomes include hospitalisation; referral or reconnection to services; transportation; medication administration onsite. Liaison law enforcement officer facilitates communication between the team and police; attends calls; ensures safety; provides follow up assistance regarding police matters. Professionals deliver educational classes to the police.	Hospitalisation and jail could be used.
Second responders					
Edmondson and Cummings (2014)	Oldham Phone Triage/RAID Pilot Project.	Trained mental health workers who worked with hospital colleagues as part of the Rapid Assessment Interface and Discharge team.	Some officers recalled previous training. Informal learning from the model.	Police are advised and supported with s.136 decisions; mental health professionals support police after s.136 is used. Mental health professionals help direct individuals to the appropriate care.	Police make final decision informed by National Decision making model and RAID liaison over the phone.
Evangelista et al (2016)	Alfred Police and Clinical Early Response (A-PACER).	Mental health clinician from the Crisis Assessment and Treatment Team; A-PACER police officer, part of the secondary response.	Expertise of A-PACER police officers developed.	Mental health clinician conducts mental health assessments; produces a care plan at the scene and helps A-PACER officers develop mental health knowledge. Hospital transport and handovers occur when appropriate.	Not stated.
Furness et al (2017)	Northern Police, Ambulance and Clinical Early Response (NPACER).	Senior mental health clinician and police officer.	Not stated.	Police assess risk before team arrives. Specifically the model focuses on admission to an acute mental health inpatient facility in the area, as well as emergency department diversion (McKenna et al, cited in Furness et al. 2017).	Mental health legislation could be used.
Heslin et al (2016)	Street Triage.	Team composed of a psychiatric nurse and a police constable.	Not stated .	Referral to other services. Section 136 and arrest could occur.	Mental health legislation through section 136 and individuals could be arrested.

Irvine, Allen and Webber (2015)	Street Triage.	Initially two Band 6 mental health nurses and one Band 3 community support worker; with experience in in-patient, secure facilities and crisis teams. Later another band 3 was added. Reduced to one band 3 and 6 due to funding.	Refresher safeguarding training for team. Informal learning for officers.	Assessment in crisis and non crisis situations (Band 6); provides background information via radio and telephone; liaison; de-escalation; intervention; care planning; referrals to primary and secondary mental health services; arranges appointments for those from other mental health trusts; advise officers over the phone; liaison work with the crisis team and care coordinators; signposting. Police may use section 136.	Information from the Triage team helps officers make decisions. Shared decision making, though some disagreements on best course of action. Arrest under section 136/135 and criminal law could occur.
Jenkins at al (2017)a	Unnamed police liaison scheme.	Two mental health nurses, one on each shift accompany a police officer.	Not stated.	Assess and divert individuals who are potentially experiencing a mental health emergency, as well as telephone advice to officers.	Section 136 could occur.
Jenkins et al (2017)b	Unnamed police liaison scheme.	Rotated shifts, 4 mental health nurses.	Not stated.	Telephone advice to the officers with the individual experiencing distress.	Section 136 could occur.
Kirst et al (2015)	Mobile Crisis Intervention Team.	Mental health nurses and police officers both of which have expertise in crisis intervention, an officer and a nurse attend together.	Training in crisis intervention for team police and nurses.	Nurses perform mental health assessments and refer to community services.	Who takes the lead in a situation is determined by the context.
Lamb et al (1995)	The Systemwide Mental Assessment Response Team.	4 mental health professionals (psychiatric nurses or technicians), 4 police officers; (minimum of one of each on each shift). Superiors include a supervisory detective and a clinical social worker.	Initial 80 hour and ongoing monthly training for all team members (includes mental health and criminal justice related topics and policy and procedures). Informal mental health training for officers.	Distressed individual evaluated by team; can be referred to outpatient/ community services or taken to the emergency room. Mental health professional brings expertise on mental health crisis and the conditions where hospitalisation is necessary, while the officer is able to assist with violence.	Arrest can occur.

Lee et al (2015)	Alfred Police and Clinical Early Response (A-PACER)	A-PACER Mental health clinician; A-PACER police officer; A-PACER Police Officer in Charge (monitors radio).	Not stated.	The A-PACER police officer ensured safety. Services offered include de-escalation; assessment (including behavioural disturbance and intoxication); referral advice; transport advice; treatment plans; emergency department transportation; liaison with other services. Individuals could be admitted to an inpatient ward or charged.	Individuals could be charged under criminal law.
Lord and Bjerregaard (2014)	Mobile crisis unit. (MCU)	Mental health professionals such as nurses- mental health clinicians, physicians were involved in testing the functioning of adults. Specific clinicians are not specified.	Many of the officers in Mecklenburg county have successfully completed crisis intervention training .	Responders are able to evaluate and decide on an appropriate response for the individual experiencing crisis. The level of need is assessed by the MCU as either routine, urgent, or emergency. Responses can range from on-the-spot counselling to involuntary commitment.	Involuntary commitment may be used.
McKenna et al (2015a)	Northern Police and Clinician Emergency Response (NPACER).	Police officer who has an awareness of the intervention; mental health nurse who is ranked in a senior post as an emergency mental health nurse.	Not stated.	Mental health assessments; contains behavioural escalation; divert individuals to the appropriate care and admit individuals to acute inpatient services . Section 10 can be used by the police.	Mental health legislation could be used by mental health practitioner. The decision making process is often collaborative. Section 10 can be used by the police.

McKenna et al (2015b)	Northern Police and Clinician Emergency Response (NPACER).	Mental health clinician (senior nurse) and police officer. Officers have an awareness of NPACER and the clinicians are emergency mental health nurses.	Not stated.	In situ mental health assessment; diversion to to community agencies (these may be mental health or social care) or the police can use a section 10 to direct the individual to acute inpatient services or the emergency department.	Police use of section 10.
Olivero (1990)	Linkage agreement between law enforcement agency and community mental health center.	Masters degree level community mental health staff.	Not stated.	<i>“On-site consultations included accompanying police officers to the subject's place of residence, a public place, police stations, county jails, or any other similar sites”</i> (Olivero, 1990, p.9). Individuals who were involuntarily committed to hospital were transported by law enforcement officials. Individuals could also be prosecuted.	Mental health professional generally determines the course of action and used a crisis assessment form. Individuals could be prosecuted or committed to hospital involuntarily .
Reveruzzi and Pilling (2016)b	Thames Valley Police Street Triage scheme.	2 Band 6 mental health nurses. 1 police officer. 1 analyst. An officer and nurse would respond together.	Not stated.	Both face to face support and a phone advice line. Phone line to support control room officers decision making about pathways for individuals where triage were not available. Police could use Section 136 and 135, as well as arrest powers. If the nurses needed to respond in person, they would arrange to meet the officers requesting the response at an agreed location within 30-45 mins.	Police legal powers.

Reveruzzi and Pilling (2016)c	British Transport Police Street Triage scheme.	4 NHS nurses, 1 x band 7, 3 x band 6. 1 police officer and 3 British Transport Police civilian staff.	Not stated.	Nurse gives telephone advice including mental health history of the individual and places of safety. The team could refer, liaise and signpost to different organisations and had daily tasking meetings. Nurses supported families and friends of the individuals who had taken their own life; did follow up work with individuals around engagement with services; liaised and referred to crisis teams. Police could use Section 136 and 135, as well as arrest powers.	Police legal powers.
Reveruzzi and Pilling (2016)d	The Metropolitan Police Street Triage Scheme.	<i>“The Mental Health Trust recruited four Band 6 nurses with prior experience as home treatment team staff, L&D teams, or criminal justice workers.”</i> (Reveruzzi and Pillig, 2016, p.21).	Not stated.	Nurses would advise the police over the phone, they would then attend the scene if appropriate. Individuals would be referred to the appropriate agencies. Weekly meetings to liaise with the police. Police could use Section 136 and 135, as well as arrest powers	Police legal powers.
Reveruzzi and Pilling (2016)e	The Derbyshire Police Street Triage scheme.	3 nurses from a pool of 7 and 3 police officers on duty. Nurses from a mental health team specialising in criminal justice; triage police were from a response team or Safer Neighbourhoods. An officer and nurse respond together.	Pre implementation of the scheme, police and health staff received training in mental health law, suicide and self harm and attended relevant conferences.	Police could use Section 136 and 135, as well as arrest powers. Nurses were able to signpost individuals to the appropriate health, social care and third sector services, as the triage team was also embedded into crisis and liaison pathways. Partnerships were formed with a number of services such as third sector services like Samaritans, and services such as the ambulance, mental health liaison and the crisis team.	Police legal powers.

Reveruzzi and Pilling (2016)f	The North Yorkshire Police Street Triage scheme.	On each shift one Band 3 and one Band 6 worker was deployed.	Not stated.	Triage team and officers met on a regular basis to discuss the model. Individuals were assessed and a plan was put in place to support them in the community, such as referral to services, liaison work and follow up appointments. Police could use Section 136 and 135, as well as arrest powers.	Police legal powers.
Reveruzzi and Pilling (2016)g	The West Yorkshire Police Street Triage scheme. Extended pilot renamed to Mental Health Crisis Triage.	2 Band 6 nurses and 2 Band 3 nurses in the extended pilot. 1 band 6 mental health clinician (this could be a nurse, AMHP or occupational therapist) and a band 3 health support worker.	Not stated.	<i>"Clear pathways to access mental health services were agreed within the service and included referrals to crisis assessment service (and admission to hospital if necessary), CAMHS, community mental health teams, substance misuse services, early intervention services for psychosis, learning disabilities support, and Improving Access to Psychological Therapies (IAPT) services"</i> (Reveruzzi and Pilling, 2016, p.25). Police could use Section 136 and 135, as well as arrest powers.	Police legal powers. .
Senker and Scott (2016)	Street Triage.	Police officer (opts in on overtime) and a mental health nurse (part of normal rota or bank staff) work together.	Not stated.	Assessment takes place, mental health professionals make referrals and other recommendations. Police may use Section or 135, 136 or arrest powers.	Section 135/ 136 may be used or arrest can be used.

The Allen Consulting Group (2012)	Police, Ambulance and Clinical Early Response (PACER).	Mental health clinician and a police officer.	PACER police gain better skills to engage with individuals experiencing mental illness. All police have basic mental health training to screen individuals for mental health issues.	The team can deescalate crisis. Mental health assessment performed by the clinician. PACER team members use the police database (LEAP) and mental health services (CMI) to inform their work and assessment. Option to arrange transport to hospital or psychiatric facilities. If individual is already known to services, their clinician is contacted. Section 10 may be performed by the police.	Not stated though section 10 can be used. Mental health and police databases support decision making during the assessment .
Both first and second responders					
Abbott (2011)	Framingham Jail Diversion Programme.	Mental health clinician responds with police officers. Back up clinicians from Advocates Psychiatric Emergency Services if the main clinician is not present.	Before implementation, police received 4 hour training session around mental health issues and the operation of the programme. Annual refresher training for those who work for the service .	Clinicians respond in the community with a police officer and do a mental health assessment, may result in involuntary commitment under section 12 or referral to community treatments. Back up clinicians go to the scene or give phone advice. Monthly meetings between the Framingham police and jail diversion teams. Arrest may still occur. Clinicians will transport the diverted individual to the hospital.	Section 12 or arrest may occur.
Dyer, Steel and Biddle (2015)	Street Triage.	Mental health Street Triage nurses.	Not stated.	Nurse conducts an assessment which may lead to further care services being implemented or the individual being sectioned.	Although not part of the team, police can use mental health legislation if needed.
Forchuck et al (2010)a	Site A of the three communities evaluated in this study.	There are 29 full and part time mental health staff; 4 full time police officers; 4 back-up full time officers and 75 crisis intervention team police officers available. Police officer and a mental health worker respond together.	Nothing regarding the model but some of the officers have Crisis Intervention Team training.	The team work to support the individual in crisis.	Not stated.

Girard et al (2014)	A police department–mental health outreach team partnership.	Nurses, social workers and psychiatrists as part of the outreach team, and the police, who respond to and are responded to by the outreach team.	Not stated.	Outreach team help police if mental illness is suspected in homeless person needing support. Police assist in locating missing individuals who live on the streets. Both parties tried to de-escalate situations. Police could arrest the individual while the outreach team could hospitalise individuals. Partnership meetings also took place. Other functions of the collaboration included for instance advice and searching for individuals.	Arrest and hospitalisation powers.
Hollander et al (2012)	Mobile psychiatric crisis assessment and treatment teams (CATT).	CATT staff who are mental health professionals, police officers who respond separately may request the team or support the CATT team. Protocol to do so.	Not stated.	CATT staff make decisions about the individual experiencing crisis, they conduct mental health assessments. Individuals can be placed under involuntary treatment orders. Transportation of individuals to hospital can also occur. Police who work with CATT provide a safe environment.	Mental health legislation in the form of involuntary treatment orders.
Horspool, Drabble and O’Cathain (2016)a	Street Triage.	A mental health worker and a police officer respond together.	Educational sessions for police and mental health staff directly involved in the implementation and staff from wider organisations which work alongside police and mental health services.	Nurses and police attend to the individual in mental health crisis, provide a strategy for intervention where appropriate and refers to services.	Shared decision making . S.136 could occur.

<p>Horspool, Drabble and O’Cathain (2016)b</p>	<p>Street Triage.</p>	<p>A mental health worker and police officer travel together. A mental health worker is also situated in the control room.</p>	<p>Educational sessions for police and mental health staff directly involved in the implementation and staff from wider organisations which work alongside police and mental health services.</p>	<p>Nurses and police attend to the individual in mental health crisis, provide a strategy for intervention where appropriate and refers to services</p> <p>Mental health worker in the control room will advise the police over the phone and talk to service users. Referral to the appropriate services by the nurses.</p>	<p>Shared decision making. Section 136 could occur.</p>
<p>Kane and Evans (2018)a</p>	<p>Command and Control Room Triage Service.</p>	<p>A team leader and three nurses, as well as a specialist substance misuse nurse. The team triages calls to the police and after March 2016 would go to planned visits with the police.</p>	<p>Not stated.</p>	<p>The nurses triaged calls coming into the police command and control room, they also did assessments which were arranged with officers in the community.</p>	<p>Mental health legislation could be used.</p>

Kane and Evans (2018)b	Street Triage (with nurses embedded in the command and control room).	Two nurses working alternative shifts who worked with a team of response officers (from April 2014 to May 2016). From May 2016, three nurses were also based in the command and control room, working alternative shifts.	Not stated.	The Street triage nurses respond to mental health related incidents in the dedicated car, they advised officers on incidents, while the nurses in the command and control room feed information to the triage nurses, as well as responding to telephone calls. Mental health legislation could be used.	Mental health legislation could be used.
Kane et al (2018)a	Embedded staff in police contact and control rooms.	Normally psychiatric nurses.	Not stated.	Triage role and advice.	Not stated.

Kane et al (2018)b	Embedded staff in police contact and control rooms.	Normally psychiatric nurses.	Not stated.	Triage role and advice.	Not stated.
Lamanna et al (2018)	Mobile crisis intervention team (MCIT).	Mental health nurse and police officer with extra training.	Police had supplementary mental health training.	Crisis response and de-escalation and hospital escortation.	Ontario's Mental Health Act.

Reveruzzi and Pilling (2016)h	The Devon and Cornwall Police Street Triage scheme.	Three Band 6 nurses employed in liaison and diversion teams in the area.	Nurses had to undergo IT training to be able to access relevant police systems.	The nurses would advise the police over the phone and could offer support, in person in Exeter and Plymouth. Police could use Section 136 and 135, as well as arrest powers. Some support with signposting and administration type tasks was provided by Liaison and Diversion staff.	Police legal powers.
Reveruzzi and Pilling (2016)i	The Sussex Police Street Triage scheme.	Mental health (Band 7) accompanied by a police officer.	Joint training day for health and police staff before the service began.	Responded to mental health and criminal justice needs. The individuals GP was contacted by the nurse, and individuals were followed up to check they were engaging with services. Police could use Section 136 and 135, as well as arrest powers.	The most appropriate officer takes responsibility where criminal justice matters arise.
Scott, (2000)	Mobile crisis programme.	Psychiatric nurse and two police officers in a single shift. Part of a bigger team made up of two psychiatric nurses and four police officers. Team also has access a psychiatrist for consultation over the phone.	Not stated.	Mobile Crisis Programme Police are there to ensure safety; nurses provide an evaluation. The nurse either give onsite counselling and referral advice, or decide if hospital is necessary. If necessary, the individual is transported to hospital with the team who then assist with the individual being admitted. Arrest can occur.	Nurse decides if hospitalisation is appropriate. Arrest can occur.
Steadman et al (2000)a	Community service officer team.	Community Service Officers.	Individuals receive training to be community service officers which lasts for 6 weeks.	The community service officers support the police by aiding in crisis intervention and giving follow up support. Individuals could either be transported to a treatment site, referred to treatment, or the situation	Police could arrest.

				was immediately resolved. The police being assisted could arrest.	
Steadman et al (2000)b	Knoxville mobile crisis unit.	Each team contains two individuals from a total of 9 staff.	Not stated.	Individuals could either be transported to a treatment site, referred to treatment, or the situation was immediately resolved . The police being assisted could arrest.	Police could arrest.
Thames Valley Police (2015)	Street Triage .	A mental health nurse (Band 6) accompanied by a police officer.	Operational staff had six months training and familiarisation with the new service. The mental health professionals were vetted and trained to use the Police Command and Control System and radio.	The mental health professional advises the police over the phone or on the scene and assesses the individual in order to contain risk and signpost the individual to the most appropriate care. Police officers could arrest individuals or apply section 136.	The mental health professionals provide information to support decision making. Section 136 could be used.
Vogel-Stone (1999)	Berkeley Mental Health Mobile Crisis Team (MCT).	One MCT paid professional usually accompanied by a volunteer graduate student intern. Generally accompanied on the scene by police or other emergency services.	Not stated.	<i>"Typical crisis calls consist of assessment for involuntary commitment, support and assistance to families following an unexpected death (murder, suicide), and debriefing after a traumatic incident (robbery, rape, domestic violence, assault)."</i> (Vogel-Stone, 1999, p.17).	5150 mental health evaluation for involuntary commitment should they be an danger to themselves or others.