Police-related triage interventions for mental health-related incidents: a rapid evidence synthesis

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Scientific summary

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Background

The volume of crisis calls related to people with serious mental ill health is an increasing challenge for police services. Police officers are often the first responders to mental health-related incidents and consequently can become a common gateway to care. This has raised concerns about the use of police resources and police officers' relative lack of knowledge, skills and support when handling the mental health needs of individuals in crisis.

In 2013, the Department of Health and Social Care (DHSC) funded a number of mental health crisis triage schemes in England. These 'street triage' schemes typically involved mental health professionals (MHPs) supporting police officers when responding to emergency calls that involved a person who may be suffering from a mental illness. These individuals often come into contact with the police despite not necessarily having committed an offence, and street triage interventions aim to direct these people to appropriate services, thereby avoiding inappropriate further interaction with the criminal justice system.

In contrast to these models, liaison and diversion (L&D) services are typically concerned with helping people when they are suspected of having committed an offence. However, it is conceivable that, in the future, L&D service providers, in agreement with local police forces and health commissioners, could extend their role to cover street triage objectives.

There is no universally accepted taxonomy of interventions in this area. A recent scoping review (Parker A, Scantlebury A, Booth A, MacBryde JC, Scott WJ, Wright K, McDaid C. Interagency collaboration models for people with mental ill health in contact with the police: a systematic scoping review. *BMJ Open* 2018;**8**:e019312. https://doi.org/10.1136/bmjopen-2017-019312) of interagency collaboration models for people with apparent mental ill health identified a range of possible models:

- Pre-arrest diversion – providing police officers with specialist mental health training to better manage situations involving people with mental ill health and to offer treatment as an alternative to arrest.
- Co-response – a shared protocol, pairing trained police officers with MHPs to attend police call-outs involving people with mental ill health.
- Information-sharing agreements – information about people with mental ill health being shared between police and other agencies or between the individual and these services.
- Co-location – MHPs employed by police departments to provide on-site and telephone consultations to officers in the field.
- Consultation – police agencies accessing advice from MHPs when working with people with mental ill health, often via the telephone.

This rapid evidence synthesis focused on police-related mental health triage (PRMHT) interventions in general, as street triage is often used to describe just one form of intervention that belongs to a larger cluster of interventions with similar aims.

Objectives

What is the evidence base for models of PRMHT interventions?

i. Which models have been described in the literature?
ii. What evidence is there on the effects of these models?
iii. What evidence is there on the acceptability and feasibility of these models?
iv. What evidence is there on the barriers to and facilitators of the implementation of these models?

Methods

A three-part evidence synthesis of evidence on PRMHT interventions was undertaken:

1. Metasynthesis of evidence on the effects of PRMHT models, including existing reviews, supplemented by the most recent primary evidence. This incorporated:
    - a taxonomy of evaluated interventions, describing the different underlying models
    - a summary of quantitative evidence on the effects of PRMHT interventions.
2. Rapid evidence synthesis of UK-relevant qualitative data on implementation, including qualitative and mixed-methods primary studies to identify factors affecting the implementation of PRMHTs.
3. Overall synthesis to:
    - combine findings from the quantitative and qualitative components in a narrative synthesis
    - outline the evidence for what works in what circumstances and for whom, potentially setting the scene for further research to develop programme theories of the more successful models.

Inclusion criteria

Population
The population was individuals who were perceived to be experiencing mental ill health or who were in a mental health crisis and who had come into contact with the police.

Interventions
Interventions were included that met the following definition of PRMHT:

- Police officers responding to calls involving individuals who are perceived to be suffering from mental ill health or a mental health crisis.
- A judgement about the most appropriate route of care for the person concerned is made in the absence of suspected criminality or a criminal charge.

Study design
The metasynthesis of intervention effects included systematic reviews and recent quantitative primary evaluations not covered by existing reviews.

The rapid evidence synthesis of qualitative data included well-reported studies that collected UK data using specific qualitative techniques and analysed these qualitatively.

Outcomes
Inclusion was not restricted by outcome.

Settings

Inclusion was not restricted by country or setting for systematic reviews. Given the unique governance arrangements for delivering a mental health triage service in the UK, as well as important differences in social context and the delivery of health and criminal justice services between countries, this research restricted inclusion of primary study data to interventions that were implemented in the UK.

Risk of bias

Risk of bias in reviews was assessed using the Egan *et al.* adapted criteria (Egan M, Tannahill C, Petticrew M, Thomas S. Psychosocial risk factors in home and community settings and their associations with population health and health inequalities: a systematic metareview. *BMC Public Health* 2008;**8**:239).

Controlled primary studies were appraised using the Cochrane Effective Practice and Organisation of Care risk-of-bias tool (Higgins JP, Altman DG, Gøtzsche PC, Jüni P, Moher D, Oxman AD, Savović J, *et al.* The Cochrane Collaboration's tool for assessing risk of bias in randomised trials. *BMJ* 2011;**343**:d5928). Single-group studies were not formally assessed for methodological quality, but the adequacy and clarity of their reporting were considered based on context, methods and impact.

Qualitative studies were appraised using the Critical Appraisal Skills Programme checklist for qualitative research [Critical Appraisal Skills Programme. *CASP Qualitative Research Checklist*. 2018. URL: www.casp-uk.net/casp-tools-checklists (accessed 13 August 2018)].

Synthesis

Evidence on the effects of police-related mental health triage intervention models

The aims, characteristics, results and risks of bias of included reviews and recent primary evaluations of effects were tabulated and combined in a narrative synthesis.

UK-relevant qualitative data on implementation

Characteristics of included studies were extracted and tabulated and their full text entered into NVivo version 11 (QSR International, Warrington, UK) software for coding and thematic analysis.

Overall synthesis

An overall narrative synthesis drew together evidence from the effects of PRMHT interventions with UK-relevant qualitative data on implementation to address the stated research objectives. In the absence of adequate evidence, detailed recommendations were made for the design and conduct of future evaluations in this area.

Results

Five systematic reviews, eight primary studies reporting quantitative data and eight primary studies reporting qualitative data were included in the rapid evidence synthesis. Most systematic reviews and primary studies were at risk of multiple biases because of their designs and/or a lack of reporting of methods. The volume of qualitative evidence presented in PRMHT studies was relatively limited. Even within the DHSC-funded evaluation of pilots, some of the subthemes were based on statements from just one or two individuals.

Conclusions and implications for practice

Most PRMHT interventions involved police officers working in partnership with MHPs, although the role, responsibilities and location of MHPs varied. There is very little UK evidence on alternative models of providing specialist mental health training to police officers. Interventions were generally valued by staff and showed some positive effects on procedures (such as rates of detention) and resources, although these results were not entirely consistent and not all important outcomes were measured. In particular, mental health service-related and individual service user outcomes were largely absent.

As PRMHT interventions sit at the intersection of criminal justice and mental health services, their successful implementation may depend on strategic integration of these services at the relevant local or regional level. Effective sharing of information and integration of knowledge among police and MHPs appears to be crucial. There is some evidence on how partnerships, protocols and technology can influence integration and implementation.

Most of the evidence was at risk of multiple biases because of design flaws and/or a lack of reporting of methods, which might affect the results. All the included primary research evidence was conducted in England and health equity data were largely absent.

Models described in the literature

The schemes evaluated in the UK studies were typically described as street triage, but these incorporated aspects from a range of different models, including co-response, information-sharing agreements, co-location and consultation approaches. A key difference between UK PRMHT schemes was the role and/or location of MHPs.

In pre-arrest diversion models [such as the USA-based Crisis Intervention Team (CIT) approach], MHPs may provide specialist training for police officers but may not be routinely involved in attending incidents or informing assessments. There is currently an absence of UK-based qualitative data on this particular model and only limited quantitative data from one UK study.

Evidence on their effectiveness

There is little robust evidence on the effectiveness of PRMHT models. The limited evidence available from the quantitative studies suggests reductions in formal detentions, higher hospital admission rates, increased likelihood of follow-up by secondary mental health services if patients are not admitted and an increase in the use of health-based places of safety. However, the results were not entirely consistent.

There is minimally reported, heterogeneous and conflicting evidence on the effects of PRMHT interventions on outcomes, such as quality/timeliness of assessment, referral and treatment, access to services, demand for police resources and the number of repeated contacts with individuals.

There is a near-total absence of reliable quantitative evidence on individual mental health outcomes, changes in demand for mental health services and changes to case-finding or level of access to health services.

No full cost-effectiveness analyses of PRMHT schemes were identified. Two studies reported police force cost savings, but had conflicting findings with regard to NHS costs.

Evidence on their acceptability and feasibility

Qualitative evidence on PRMHT models in the UK primarily consists of the views of a relatively small number of police and mental health staff directly involved in delivering pilot interventions.

Acceptability

In general, police staff appeared to value PRMHTs and both police and health staff noted an improvement in quality of care.

Service user feedback was rare, although some qualitative evidence suggested that service users preferred to interact with MHPs rather than with police officers. This was attributed to MHPs' communication skills and the association of police uniforms with authority and criminalisation.

Feasibility

Strategic response to mental health-related incidents may need to consider which pathways prove most effective for service users and make the most appropriate and efficient use of both police and NHS resources. Some barriers to successful outcomes lay outside the control of police or even PRMHT staff

(e.g. lack of co-ordination between neighbouring NHS trusts). Similarly, the availability and resources of local services need to be taken into account.

Advantages of retaining consistent staff on PRMHT duties may include enhanced relationships and understanding, greater efficiency and less frequent issues around police vetting procedures. Disadvantages could include mental health knowledge being restricted to fewer police staff and poorer integration of this knowledge within the wider force. Reallocating police and MHP staff to PRMHT from other active roles may also have important consequences.

Evidence on the barriers to, and facilitators of, their implementation

Barriers

There appears to be uncertainty about how and when best to deploy MHPs to the scene of an incident. There may be a trade-off between MHPs having better access to records in a hospital/control room versus using their hands-on skills to aid in incident resolution. In conjunction with other information-sharing measures, this kind of barrier might potentially be overcome by providing MHPs with improved mobile information technology.

It was clear from the evidence that not all staff were aware of the nature of police powers in public places and private premises. Improved knowledge about the constraints on police powers among MHPs and control room staff may prevent misunderstandings or inappropriate recommendations for action.

Data collection was often incomplete and restricted in scope, which limits the opportunity to continuously evaluate and improve services. Methods for comprehensive, accurate and efficient data collection (that do not place undue additional demands on front-line police or health staff) may need to be developed. Strategic multiagency data collection (such as information-sharing) may benefit from being governed by relevant protocols and facilitated by appropriate technology. Future evaluations would benefit from collecting data beyond the rates and consequences data covered in section 136 of the Mental Health Act 1983 (S136) [Great Britain. *Mental Health Act* 1983. London: The Stationery Office; 1983. URL: www.legislation.gov.uk/ukpga/1983/20/section/136 (accessed October 2017)].

Measures to address the disproportionately high demand created by repeat service users may be worth further evaluation.

Facilitators

Qualitative evidence emphasised the value of strong partnerships between police and health services, co-location of services and the value of shared information. Future PRMHT interventions would likely benefit from immediate access to shared information across the police/health interface, facilitated by agreed protocols and underpinned by appropriate technology that permits compatibility of data across police and health systems.

In all cases, lines of accountability and responsibility need to be clear among all PRMHT staff. This is because of different attitudes to risk between police officers and MHPs, and the complexity and difficulty of making judgements about the best course of action. Similarly, roles, responsibilities and reciprocal arrangements need to be clearly defined between PRMHT services, crisis teams and other related health services.

Immediate and consistent availability of MHP support was very important to police officers responding to mental health-related incidents, with immediacy sometimes seen as the key difference between PRMHT and crisis teams. The 24-hour availability appears crucial and appropriate communication technology may improve accessibility.

Many resource savings attributed to PRMHT interventions stemmed from their value in accelerating the assessment of user needs. No evidence was found comparing different models in terms of needs assessment, despite their potential to have quite different costs and benefits.

Implications for research

Although there is published evidence that aims to describe and evaluate various models of PRMHT interventions, most evaluations are limited in scope and methodologically weak. Several systematic reviews and recent studies have called for a prospective, comprehensive and streamlined collection of a wider variety of data to evaluate the impact of PRMHT interventions.

On the basis of the evidence included in this rapid evidence synthesis, future evaluations would be more informative if they addressed the following:

- Clearly articulate the objectives of the PRMHT intervention.
- Involve all stakeholders (including people with mental ill health) in the design and evaluation of interventions to help identify these objectives.
- Collect and analyse outcomes that relate directly to the stated objectives. Quantitative data should extend beyond S136 rates, places of safety and process data, to measuring the outcomes that are most important to the police, mental health and social care services and individual service users. These might provide greater insights into –

    - quality and timeliness of assessment, referral and treatment
    - service users' mental health outcomes
    - service users' experience of services
    - level of service engagement after encounters with PRMHT
    - characteristics and needs of people who frequently and repeatedly come into contact with services via the police
    - changes in case-finding and access to health services (e.g. mental health, substance misuse, sexual health and contraception)
    - demands on police resources and time
    - demands for community mental health services
    - rates of hospitalisation via accident and emergency or acute mental health services
    - costs and savings to health and police services.

- Evaluations should take into consideration the shorter-, medium- and longer-term effects of PRMHT interventions, for example evaluating the consequences of PRMHT referrals on individuals, beyond the initial number and types of referral.
- Researchers need to make realistic allowance for data collection in budget allocations for new studies.
- It is likely that better data collection processes will be needed. However, these processes should not be overly burdensome to front-line police or health staff.
- When possible, study designs should have an appropriate concurrent comparator. There may be an interest in comparing the pragmatic implementation of such an approach against pre-arrest diversion models that emphasise specialist training of police officers over ongoing collaboration with MHPs.
- The collection of qualitative data may help better understand which approaches work best and why, although such research should capture dissenting views as well as the views of advocates.

Given the potential of PRMHT interventions to both incur costs and accrue benefits across multiple services, any future cost-effectiveness analysis of PRMHT should take a multiagency perspective to understand the relative impact of introducing a particular model on the resource use across police, health and social services.

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