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Interagency collaboration models for people with mental ill health in contact with the police: a systematic scoping review

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ABSTRACT

Objective To identify existing evidence on interagency collaboration between law enforcement, emergency services, statutory services and third sector agencies regarding people with mental ill health.

Design Systematic scoping review. Scoping reviews map particular research areas to identify research gaps.

Data sources and eligibility ASSIA, CENTRAL, the Cochrane Library databases, Criminal Justice Abstracts, ERIK, Embase, MEDLINE, PsycINFO, PROSPERO and Social Care Online and Social Sciences Citation Index were searched up to 2017, as were grey literature and hand searches. Eligible articles were empirical evaluations or descriptions of models of interagency collaboration between the police and other agencies.

Study appraisal and synthesis Screening and data extraction were undertaken independently by two researchers. Arksey’s framework was used to collate and map included studies.

Results One hundred and twenty-five studies were included. The majority of articles were of descriptions of models (28%), mixed methods evaluations of models (18%) and single service evaluations (14%). The most frequently reported outcomes (52%) were ‘organisational or service level outcomes’ (eg, arrest rates). Most articles (53%) focused on adults with mental ill health, whereas others focused on adult offenders with mental ill health (17.4%). Thirteen models of interagency collaboration were described, each involving between 2 and 13 agencies. Frequently reported models were ‘prearrest diversion’ of people with mental ill health (34%), ‘coresponse’ involving joint response by police officers paired with mental health professionals (28.6%) and ‘jail diversion’ following arrest (23.8%).

Conclusions We identified 13 different interagency collaboration models catering for a range of mental health-related interactions. All but one of these models involved the police and mental health services or professionals. Several models have sufficient literature to warrant full systematic reviews of their effectiveness, whereas others need robust evaluation, by randomised controlled trial where appropriate. Future evaluations should focus on health-related outcomes and the impact on key stakeholders.

Strengths and limitations of this study

This is the first, broad scoping review to map the evidence available for interagency collaboration models between the police and other agencies, for people with apparent mental ill health.

We undertook rigorous searches for the available literature, including grey literature, led by an information specialist with input from the team, including a police officer.

Two reviewers independently undertook study selection, and the data extraction and study coding was checked by a second researcher to ensure robustness in these processes.

The lack of an assessment of study quality and synthesis of the findings means we were unable to make conclusions about the effectiveness of individual models.

BACKGROUND

Globally, there has been increasing policy and focus on interagency collaboration for people with mental ill health coming into contact with the police and other statutory agencies such as healthcare providers. In recent decades in the UK and elsewhere, mental health legislation has required health departments to establish jointly agreed policies with other statutory agencies to manage people with a range of mental ill health.

Interagency collaboration, also known as ‘integrated’, ‘multiagency’ or ‘interprofessional’ collaboration, takes many forms ranging from a low level of joint decision-making with limited shared resources to multifaceted, fully integrated services. Regardless of the form, interagency collaboration generally involves three core principles of information sharing, joint decision making and coordinated intervention. Interagency collaborations involving the police aim to improve health and social care outcomes for
individuals with mental ill health and the cost and effectiveness of services.\textsuperscript{16,17}

A disproportionate number of people with mental ill health come into contact with police, who are often the first public service to interact with such individuals. Between 20\% and 45\% of police time is spent engaging with people experiencing mental ill health, as victims, witnesses or offenders.\textsuperscript{18} However, mental ill health is often unrecognised and poorly handled by the police, meaning that many people end up incarcerated rather than receiving appropriate treatment.\textsuperscript{19}

There have been few systematic reviews of interagency collaboration models involving the police, with no current registered ongoing review; so the impacts, particularly health-related, of such models remain unclear. One review focused on guidance and research in the UK related to information-sharing practices within mental health services and the organisations they work in partnership with.\textsuperscript{20} Other reviews have focused on interagency working in general rather than law enforcement agencies.\textsuperscript{11,12,21,22} The extent, range and nature of the available literature on interagency collaboration between the police and other agencies are unclear.

We therefore undertook a systematic scoping review of interagency collaboration models involving the police or other law enforcement organisations and emergency services, health and social care and third sector organisations, aimed at supporting people with mental ill health. Scoping reviews are used in complex areas or where there is no existing systematic review. They provide a map of the key concepts underpinning a research area and the main sources and types of evidence available.\textsuperscript{23} It is then possible to identify areas where a full systematic review would be feasible and worthwhile, such as to capture the effectiveness of certain interventions on health outcomes.

AIMS AND OBJECTIVES

We aimed to identify and map the existing research evidence evaluating and describing interagency collaboration between the police or law enforcement and emergency services, health service, social care, education and third sector agencies for people who appear to be suffering from mental health disorder.

Our specific objectives were to identify and map the evidence available on:

1. models or mechanisms for interagency collaboration that have been described and/or evaluated
2. the broad areas and issues covered
3. views and experiences of the collaborative models.

METHODS

We undertook a systematic scoping review of the published evidence. This followed systematic review methodology, except for quality assessment of studies, and the evidence identified is mapped rather than the findings synthesised.\textsuperscript{24} The protocol was made publicly available a priori via our project website.\textsuperscript{25}

Inclusion and exclusion criteria

Eligible studies were empirical evaluations or descriptions of models of interagency collaboration between the police and other organisations dealing with members of the public of any age appearing to suffer from mental disorder, mental vulnerability or learning disability. We include all terms used to describe interagency working, ranging from active collaboration (eg, ‘interagency’ or interprofessional collaboration) to professionals working in parallel with limited collaboration between them (eg, ‘multiagency’ or ‘multiprofessional’ working) (see online supplementary appendix 1). In this manuscript, we predominantly use the term ‘interagency’; however, ‘multiagency’ is used where this is the term used in the original papers. Evidence and international literature from Organisation for Economic Cooperation and Development countries were included. Studies with any or no comparator were included. All outcomes measured were eligible for inclusion.

We excluded studies undertaken in the prison setting since separate arrangements exist for prisons, non-English language studies, studies where the interagency collaboration was focused solely on substance abuse and interagency collaboration without the involvement of the police. Online supplementary appendix 1 lists the full inclusion and exclusion criteria.

Search strategy

The following electronic databases were searched from inception to March 2017 by an information specialist: ASSIA, CENTRAL, Cochrane Database of Systematic Reviews, Database of Abstracts of Reviews of Effects, Criminal Justice Abstracts, ERIC, MEDLINE, Embase, PsycINFO, Social Care Online and Social Sciences Citation Index. The Cochrane Effective Practice and Organisation of Care and PROSPERO were searched for relevant reviews.

The search strategy for ASSIA is provided in online supplementary appendix 2; the complete search strategies are available from the authors on request. Searches were comprehensive and broadly combined domain terms and their associations for ‘interagency’ and ‘police’ and ‘mental health’. ‘Google Advanced Search’ was used to identify documents and the websites of organisations such as the Centre for Mental Health, Crisis Care Concordat, National Health Services England and the Society for Evidence-Based Policing. We contacted the UK College of Policing for relevant evaluations. The reference lists of eligible studies were hand searched.

Study selection and data extraction

Search results were downloaded into Endnote, and duplicate references removed before titles and abstracts were screened. Study selection was undertaken independently by two researchers. Discrepancies were resolved by
discussion or by recourse to a third researcher. Data extraction forms were developed and piloted. One researcher extracted data and classified the included studies, and this was checked by a second researcher. Discrepancies were resolved by discussion or by recourse to a third researcher. Data extraction forms were developed for primary/descriptive studies and for reviews. Information extracted included type of study, model of interagency collaboration, target audience, agencies involved, study setting and context, purpose of interagency collaboration, outcomes evaluated and whether stakeholder perspectives were evaluated.

Strategy for collating, summarising and reporting the data
We mapped the literature, following Arksey’s5 framework. This involved developing a chart which outlined key variables of data to be extracted. Data were extracted from the original papers into the relevant sections of the chart and were subsequently sorted and shifted according to key issues and themes. This process is akin to a ‘narrative review’ in a standard systematic review. We first present basic numerical analysis of the extent, nature and distribution of the studies. We collated the geographical and chronological distribution of studies, agencies involved and the care recipient groups; research methods adopted; outcome measures reported and interagency models. We grouped studies according to the name of the interagency collaboration model and the definition of the model, as provided by the authors. We then used the terminology reported in the primary papers to code and categorise the different models. We present the studies grouped by the different models of interagency collaboration.

RESULTS
Overview of included studies
After deduplication, there were 2802 records; 340 full-text articles were reviewed independently by two authors and 125 were included (figure 1).

The studies were from eight countries: Australia,27–41 Canada,42–50 Denmark,51 France,52 Ireland,53 Netherlands,54 UK55–91 and USA92–148; two multinational studies were undertaken in Australia, Canada and the USA.10149 The majority of studies were from the USA (45%) and the UK (29%).

Study design
The study designs of the 125 included articles are given in table 1. Definitions for our classification of study designs are in online supplementary appendix 3.

Outcomes assessed
There was a wide range of outcomes assessed, with some studies reporting multiple outcomes. Where this occurred, we report outcomes in all relevant categories (table 2); therefore, some studies are presented in multiple categories. The most frequently occurring outcomes (66 studies) were ‘organisational or service level outcomes’.

The views and experiences of agency staff were investigated in 28 studies.

Study population
The majority of articles (n=67) focused on adults, either diagnosed with or perceived to have a mental health problem, such as psychoses or severe mental illness (table 3). A number of articles focused on adult offenders with mental ill health (n=22) or adults with mental health and/or substance misuse problems (n=7). Articles including children and youth generally focused on those who had been exposed to or victimised by violence (n=4), child offenders with mental health and/or substance abuse problems (n=3) or those with behavioural problems (n=2). Three articles included children and adults.

Models of interagency collaboration and agency composition
Thirteen different models of interagency collaboration were described in the included articles, although there were often overlaps in agency composition. A number of articles reported on more than one model; therefore, papers are represented in each relevant section. The terminologies used to describe the different models of interagency collaboration were directly derived from the primary papers. Detailed descriptions of the models are provided in online supplementary appendix 4.

The models identified involved collaborations between the police and a wide range of other services (table 4). The ‘consultation model’ and ‘joint investigation training’ only involved the police and mental health services; the remaining models were highly multidisciplinary involving a range of organisations. Information sharing agreements and court diversion models involved the widest combination of agencies. Across all collaborations with the police, mental health clinicians, mental health services and criminal justice agencies were the most frequently occurring partners.

Prearrest diversion
The most frequently reported model (43 articles) was prearrest diversion from Australia,20393235357 Canada,2424 the UK,60 67 74 USA28 93 94 96 98 100 102 103 113 115–117 125 126 128 132–134 137 142 144 148 and two multinational articles involving Australia, Canada and the USA.10 149 Prearrest diversion models are described as involving police officers who had special mental health training, serving as the first-line police response to mental health crises in the community and acting as liaisons to the formal mental health system. The reported purpose of prearrest diversion models was to equip police officers to better manage situations involving people with mental health, substance abuse and/or homelessness problems who became involved with the police and to offer treatment as an alternative to arrest. The most widely reported prearrest diversion model was the US-based Crisis Intervention Team (CIT) model.28 33 42 98 102 105 110 113 115 117 125 125 126 132 137 144 149 CIT is a police-based first-responder programme for...
people in mental health crisis who come into contact with the police and provides police-based crisis intervention training. This model involved collaboration between police, emergency services and treatment providers such as clinical staff from local health departments, hospital emergency departments and specialised mental health services. CIT trained officers worked in partnership with mental health professionals to assist people with mental illness, family members and other police officers.

Corespoon
do
models were reported in 36 articles, from Australia, Canada, UK, USA and multinational studies involving Australia, Canada and the UK. In this model, a shared protocol paired specially trained police officers with mental health professionals to attend police call-outs involving people with mental ill health. The reported aims were to provide assistance to people in mental health crisis and prevent their unnecessary incarceration or hospitalisation. An example of this model is the UK-based ‘Street Triage’, where a dedicated police officer and psychiatric nurse together attend the scene of incidents requiring support for mental health needs. In Street Triage, the team did not provide the initial response to events. Rather, police call handlers allocated incidents to the Street Triage team if the incident required additional mental health support.

**Figure 1** Flow chart of study selection process, adapted from PRISMA. OECD, Organisation for Economic Cooperation and Development; PRISMA, Preferred Reporting Items for Systematic Reviews and Meta-Analyses.
Telephone support to police colleagues attending a new incident was provided if the team were already busy.

Postbooking jail diversion

Thirty articles reported postbooking jail diversion programmes, from the UK and USA. This is a multi-agency liaison scheme, comprising a rapid screening and mental health assessment of people arrested at the earliest point of contact with the criminal justice system, plus a mechanism for appropriate referral or diversion to health, treatment, social and community services. An example is Diversion at the Point of Arrest, a UK-based model in which people arrested and detained at police stations were assessed by a community psychiatric nurse, who then acted as the coordinator for the involvement of other mental healthcare workers and services as needed.

Information sharing agreement models

Information sharing agreement models were reported in 13 papers from Australia, Canada, Denmark, France, the UK and USA. In this model, information about people with mental ill health was shared between police and other agencies or between the individual with mental ill health and the police and other agencies. The reported aims of information models were to improve support to people with mental ill health, foster better relations between agencies and between the police and people with mental ill health, identify hard-to-find at risk people with mental ill health and protect the public from offenders with mental ill health. An example is the Multi-Agency Public Protection Arrangements (MAPPA) which aims to protect the public from harm by sexual and violent offenders, who may have mental ill health. Agency composition includes the police, other law enforcement agencies and mental health services. MAPPA agencies work together by identifying individuals who should be under MAPPA, managing such individuals, multi-agency storing and sharing information about offenders, disclosure of information to the public about individual offenders in particular circumstances, risk assessment.

### Table 1 Research methods adopted

| Study design               | No of studies (%) | Reference no |
|---------------------------|-------------------|--------------|
| Audit                     | 3 (2.4)           | 40 41 83     |
| Case study                | 6 (4.8)           | 57 69 75 96 136 140 |
| Scoping review            | 1 (0.8)           | 42           |
| Qualitative               | 11 (8.8)          | 28 34 47 48 59 81 82 90 132 149 167 |
| Mixed methods             | 23 (18.4)         | 27 29–31 36 49 51–53 56 61 65–67 70 89 104 109 118 141 142 146 147 |
| Controlled before and after study | 15 (12)           | 39 54 63 64 68 73 79 88 114 120 130 131 134 144 148 |
| Service evaluation        | 18 (14.4)         | 35 38 43 72 74 80 85–87 91 93 94 112 116 119 121 124 137 |
| Survey                    | 12 (9.6)          | 58 60 76 84 100 105 108 110 123 135 143 150 |
| Description of model      | 35 (28)           | 32 33 37 44–46 50 55 62 77 78 92 95 97–99 101–103 106 107 111 113 115 117 122 125–129 133 138 139 145 |
| Prospective observational study | 1 (0.8)       | 71           |

### Table 2 Outcomes assessed

| Outcomes assessed                                                                                          | No of studies (%) | Reference no |
|------------------------------------------------------------------------------------------------------------|-------------------|--------------|
| Organisational/service level outcomes (eg, arrest rates, diversion rates, mental health referrals, court referrals and numbers of people under emergency protective custody) | 66 (52)           | 29–32 35 38 39 41 43 46 49 50 53 54 58 61–64 68 70–76 80 83–88 92 93 95 96 100 105 107–110 112 114 116 118–121 123 124 127 130 131 133–137 139 140 143 144 146 147 |
| Views and experiences of agency staff (eg, police officers)                                                | 28 (22)           | 28–31 34 36 47–49 51 52 56 65 66 70 82 89 94 104 109 118 123 132 141 142 146 167 |
| Views and experiences of people in community (eg, service users, families and carers)                    | 18 (14.2)         | 29 30 43 47–49 52 53 56 58 59 65 66 89 90 109 118 150 |
| Service user mental health outcomes (eg, improvement in mood)                                             | 7 (5.5)           | 58 60 62 80 101 118 139 |
| Cost effectiveness or wider economic costs                                                                | 3 (2.4)           | 27 60 64 |
| Staff learning outcomes (eg, staff knowledge about mental health following mental health training)        | 3 (2.4)           | 57 79 91 |
| No outcomes reported                                                                                      | 28 (22)           | 33 37 42 44 45 55 69 77 78 97–99 102 103 106 111 113 115 117 122 125 126 128 129 138 145 149 |
and management, multiagency meetings and case reviews.

Court diversion models

Eleven articles reported court diversion models from Canada,6 46 the UK,77 Ireland83 and USA.75 151 Offenders were ‘diverted’ from prosecution and into a specialised community-based service. Court diversion occurred following arrest while the individual was initially detained, during initial hearings, or while being assisted by pretrial services to offer community-based alternatives to standard prosecution. An example of such a service is ‘liaison and diversion’, which identifies and supports people with mental ill health, learning difficulties and other vulnerabilities in police stations and courts.60 151

Colocation

Colocation was a model reported in five articles from Australia,26 the UK77 and USA.94 100 144 In this model, mental health professionals were employed by police departments to provide on-site and telephone consultations to officers in the field. Another variant of the colocation model involved a dedicated police officer being based in an office within a mental health hospital; an example of this is the ‘Police Liaison Forum’.77

Comprehensive systems model

Three papers from the USA reported a ‘comprehensive systems’ approach to reducing crime and arrests, three of which focused on reducing in school arrests.95 118 136 Comprehensive systems models typically include policy

| Care recipient group                                      | No of studies (%) | Reference no          |
|----------------------------------------------------------|-------------------|-----------------------|
| Adults                                                   |                   |                       |
| Mental ill health                                        | 67 (53.2)         | 27–36 39–42 44 45 47–49 53 54 63 64 66–68 70 71 73 76 81 82 87 89 91 93 94 96 98 100–105 108 113 116 117 119 121 123 125–127 130 132 135 137 140 142 144 145 147–149 |
| Mental health and/or substance misuse dual diagnosis     | 7 (5.6)           | 43 51 61 112 133 134 150 |
| Mental health, substance misuse dual diagnosis and/or homelessness | 3 (2.4) | 107 128 141 |
| Learning disabilities                                   | 3 (2.4)           | 55 78 79               |
| Mental ill health and homelessness                      | 1 (0.8)           | 52                    |
| Offenders with mental illness                           | 22                | 31 46 50 58 62 72 75 80 83–86 88 90 106 110 111 114 120 131 143 167 |
| Offenders with learning disabilities                    | 1 (0.8)           | 69                    |
| Individuals with pathological fixations, deemed to be mentally ill | 4 (3.2) | 43 51 61 112 133 134 150 |
| Vulnerable adults, including mental health, learning disabilities and other special needs | 5 (4) | 56 57 59 60 99 |
| Children and young people                               |                   |                       |
| At risk children and youth                              | 4 (3.2)           | 92 115 118 146         |
| Offenders with learning disabilities                    | 1 (0.8)           | 65                    |
| Offenders with mental health and/or substance abuse problems | 3 (2.4) | 109 138 139 |
| Behavioural problems                                    | 2 (1.6)           | 95 136                |
| Children and adolescents who have been exposed to or victimised by violence | 1 (0.8) | 122 |
| Men, women, adolescents and older people with mental health, learning disability or acquired brain injury | 1 (0.8) | 77 |
| Mixed adults and children                               |                   |                       |
| Children and families exposed to violence and trauma    | 1 (0.8)           | 124                   |
| People with Alzheimer’s, children with autism and Down syndrome | 1 (0.8) | 129 |
| Men, women, adolescents and older people with mental health, learning disability or acquired brain injury | 1 (0.8) | 77 |
### Table 4  Overview of models and agency composition

| Type of model (no of studies) | Agency composition |
|-----------------------------|-------------------|
|                            | 24-hour crisis services | Addiction services | Adult protection services | Advocacy | Ambulance | Children and family services | Community organisations | Courts/criminal justice | Emergency services | Employment support | Hospitals (acute general) | Housing services | Mental health clinicians | Mental health services | Nurses | Police | Policy-makers | Primary care | Probation services | Schools/colleges | Social workers/social services | Welfare services | Witness services |
| Prearrest diversion (n=43)  | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] |
| Coresponse (n=36)           | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] |
| Postbooking jail diversion (n=30) | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] |
| Information sharing agreement models (n=13) | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] |
| Court diversion (n=11)      | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] |
| Colocation (n=5)            | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] |
| Service integration model (n=3) | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] |
| Comprehensive systems organisation (n=3) | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] |
| Special protective measures (n=3) | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] |
| Consultation model (n=3)    | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] |
| Joint investigation training (n=2) | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] |
| Re-entry programmes (n=2)   | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] |
| Integrated model (n=1)      | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] | ![Symbol] |
reform, multisystems coordination and changes to practice at multiple levels. An example was Project SOBEIT,\textsuperscript{118} which included six elements: (1) safe school environment, (2) alcohol and other drug and violence prevention and early intervention programmes, (3) school and community mental health preventive and treatment intervention services, (4) early childhood psychosocial and emotional development programmes, (5) educational reform and (6) safe school policies. In this model, school-based police officers worked with children, staff and external agencies to encourage prosocial behaviour and reduce drug use and criminalisation.

Consultation model
Three papers from Australia,\textsuperscript{41} the UK\textsuperscript{61} and USA\textsuperscript{97} reported on a ‘consultation’ model. In this model, police agencies accessed advice from mental health professionals when working with people with mental ill health. Typically, the advice was delivered over the telephone and generally aimed to maximise the resources provided by a specialist team and to assess and prevent criminal behaviour, protect life, arrest the perpetrator and protect property. An example is the Oldham Phone Triage/Rapid Assessment Interface,\textsuperscript{61} which consisted of a dedicated 24-hour telephone number for professional advice and assistance from the local health service’s psychiatric liaison service for local police officers.

Service integration models
Three articles from Canada,\textsuperscript{42} the Netherlands\textsuperscript{54} and the USA\textsuperscript{92} reported on ‘service integration’ models. The agencies involved were mental health providers, police officers, educational institutions and the children and family services (see table 4). The aims of these models were to integrate services by creating a network to bridge gaps between services, decrease arrest, decrease violence, improve educational attendance and completion and reduce symptoms of mental illness and psychological distress. Such models typically involve a network coordinator who provides active follow-up. An example of a service integration model is the ‘community-care networks’.\textsuperscript{54} A network coordinator (often community psychiatric nurse) received reports from network partners about any person of concern and gathered relevant information, established a plan of action and monitored implementation. Responsibility was transferred to the most appropriate agency as soon as possible.

Special protective measures
Three articles from the UK\textsuperscript{56} and USA\textsuperscript{122 129} focused on ‘special protective measures’, with the reported aim of identifying and protecting people with mental ill health, learning disabilities and other vulnerable people. An example of this was ‘speaking up for justice’,\textsuperscript{56} a collaboration between the police, the courts, hospitals and other agencies aimed at improving how vulnerable and intimidated witnesses were treated.

Joint investigation training
Two papers from the UK\textsuperscript{127 138} reported on a ‘joint investigation training’ model,\textsuperscript{136, 139} which focused on adults with mental ill health, learning disabilities or other vulnerable adults who had crimes committed against them. This model involved joint mental health training for the police, social workers, mental health and adult protection services aimed at improving multiagency adult protection investigations and promoting collaborative working to support vulnerable adults. An example of such training is the ‘Joint adult Protection Investigations’ training.\textsuperscript{57}

Re-entry programmes
Two articles from the USA\textsuperscript{127 138} reported on ‘re-entry’ programmes, which aimed to assist individuals with mental ill health to reintegrate into the community. This included institutional-based and community-based programmes serving individuals with mental illness following release from prison or hospitalisation. The ‘Prime Time Project’\textsuperscript{136} involves a collaborative alliance with local police officers to involve young people with mental ill health who have been detained by the police and involves activities in the community training in job skills and other aspects of managing daily life.

Integrated model
One article reported an Early Psychosis Programme from Australia.\textsuperscript{39} In this model, police could become involved in the voluntary or involuntary admission process of people with mental ill health into the Early Psychosis Programme. The aim was to provide continuity, familiarity and support at an early stage throughout the health service to facilitate trust and reduce distress.

DISCUSSION
Overview of main findings
The scoping review identified 13 distinctive interagency collaboration models for people with mental ill health in contact with the police, mainly from the USA, UK and Australia. Although the majority of articles focused on adults with mental ill health, a substantial body of the literature focused on offenders with mental illness. The area most commonly covered was the relationship between the police and mental health services; unsurprising as this is a critical interface for the police service. However, it is noteworthy that several key agencies were not identified as agency collaborators. For example, the ambulance service was a named agency in only three models; yet in countries like the UK, the legal frameworks and guidance stipulate that people with mental ill health taken to a health-based place of safety should ideally be transported by ambulance.\textsuperscript{18 182} Additionally, 10 articles included people with dual diagnoses of mental health and substance abuse problems, yet addiction services featured as an agency in only one of the models. This may be indicative of conflicting priorities for services; however, there is
potential for mutual benefit through greater interagency working.

Our review did not evaluate the risk of bias in the included studies, but in general, the study designs used are unlikely to provide robust evidence about effectiveness: there were no randomised controlled trials (RCTs). The main focus in the articles was the impact of the model on organisational level outcomes routinely collected by the police such as arrest and diversion rates, which they are required to collect.155 Several articles reported the views and experiences of members of the public coming into contact with the service as well as the different agencies involved. There are sufficient studies identified to justify development of focused questions for systematic review. These should include study designs relevant to the specific research question, such as qualitative studies if the focus of the review is to explore stakeholder perspectives and experimental designs if the aim is to explore effectiveness.

**Strengths and limitations**

A strength of our review is that the broad scope has facilitated mapping of the evidence available on interagency collaboration models between the police and other agencies, to appropriately manage people with apparent mental problems who come into contact with the police. The lack of an assessment of study quality and synthesis of the findings means we were unable to make conclusions about the effectiveness of individual models. However, this scoping review provides an overview of the literature not previously available.26

Identifying all available evidence on complex topics can be difficult as the relevant studies can be spread across numerous databases covering a range of disciplines. Furthermore, the key concepts may also be described using different terminology in each database so the search strategies need significant adaptation.184 Additionally, ‘interagency’ is a nebulous concept which has multiple definitions and is often interchanged with other terms, making studies on the topic difficult to identify. To address these issues, the search strategy was extensive and thorough and developed by an information specialist with input from members of the team including a police officer. We also undertook grey literature searches and hand searching to maximise retrieval.

Mapping focused on identifying distinctive models. Two reviewers independently undertook study selection and the data extraction and study coding was also checked by a second researcher to ensure robustness in these processes. However, the identification of the models inevitably has a subjective component. We have mitigated against this as far as possible through involvement of two researchers in the mapping as well as a providing examples and descriptions of each model. We assigned each study to a methodological grouping based on the description of the methods used, which may or may not have matched with the author’s categorisation of the study.

**Comparison with existing literature**

To our knowledge, this is the first systematic scoping review to focus on interagency collaboration models for people with mental ill health in contact with the police. We identified no robust evaluations of models of inter-agency collaboration such as RCTs. Such a lack of evidence has been found in other fields assessing the evidence for interagency models.155 Our categorisation of the various interagency models, such as ‘prearrest diversion’, ‘post-booking diversion’ and ‘court diversion’, fits with the Sequential Intercept Model.156 The Sequential Intercept Model is a framework for conceptualising the range of community-based alternatives for people with mental ill health in contact with the criminal justice system. The model suggests a series of ‘points of interception’ at which interventions can be targeted to prevent individuals from entering or penetrating deeper into the criminal justice system. Our review is broader and considers interagency collaboration models outside the criminal justice system. For example, we highlight ‘joint investigation training’ or ‘special protective’ models as efforts that focus on people with mental illness as victims of crime or as vulnerable witnesses.

Although the majority of articles focused on adults with mental ill health, a number focused on offenders with mental illness; possibly because individuals with mental ill health are disproportionately more likely to be arrested and enter the criminal justice system.157 158

**Knowledge gaps and implications for research, policy and professional practice**

While not all the models may be distinctive enough to make an RCT appropriate or feasible, there are a number of models where this approach would be appropriate. We identified an absence of high-quality evidence on effectiveness, despite the fact that models such as Street Triage and CIT are now routinely implemented within policing. Few evaluations considered the views of people with mental ill health or indeed the views and experiences of staff in the collaborating agencies.

Interagency collaboration models are complex interventions involving several interactive components and agencies. Existing guidance on the development and evaluation of theoretically informed, complex interventions may be useful in informing future development and evaluation of interagency models.156 More research is required to examine the effectiveness, cost effectiveness, barriers and benefits of interagency collaboration models. The latter is important for designing ‘effective’ models which might have significant benefit for healthcare. While there is significant political pressure on agencies to collaborate,18 152 160 at present, there is no clear understanding of the most effective or cost-effective ways of developing, implementing and delivering such models. Future models may require a more fundamental reassessment of the roles and functions of each agency and how they work together. Furthermore, legislative and policy changes and the speed with which they are implemented
over time and in different jurisdictions can influence the availability and even preferences for certain models. For example, in the UK, changes in legislation such as the 2017 Police and Crime Act, which extends police powers under the Mental Health Act, are likely to impact on the adoption of certain models. Studies in this area should move from simple descriptions of models of care to prospective exploratory and experimental evaluations that include primary and secondary outcomes. We identified sufficient literature for some models such as pre-arrest diversion, coresponse and postbooking diversion which warrant more in-depth evaluation in a systematic review; some of this research is already underway with an upcoming systematic review focusing on the effectiveness of liaison and diversion, Street Triage and specialist staff embedded in police control rooms. Evaluations of the cost-effectiveness of such models would be important from a policy perspective, since one of the key drivers for interagency collaboration is to streamline services and improve efficiency particularly in the current UK context of austerity.

Health services played a significant role in many of these models; however, only 5.5% of the articles assessed patient health outcomes, pointing to a need to identify the health-related benefits of interagency collaboration for patients and carers using robust methods. More work is also needed to develop conceptual clarity and frameworks around collaboration models encompassing people with mental ill health in contact with the police as suspects or perpetrators, as well as victims or vulnerable witnesses. Existing work in related areas could inform such work, such as a conceptual framework combining the concepts of primary care and integrated care to understand the complexity of integrated care. Future studies could include the views of people with mental ill health in the development and evaluation of models. Ideally, researchers should specify the influence of the research context on their findings and explain any discrepancies between their findings and the findings of other studies, given the differences in context. This could involve the adoption of process evaluation methods, where guidance already exists to inform such work.

CONCLUSIONS

We identified 13 different interagency collaboration models aimed at supporting people with mental ill health; including adults, children and different severities of condition and comorbidities. There were wide variations in the number of agencies involved within the models. All but one of these models included collaboration between the police and mental health professionals and/or services and many of the identified models included other organisations relevant to the purpose of the collaboration. We have identified models where sufficient literature exists to warrant full systematic reviews to assess their effectiveness. We have also identified other areas which have highlighted the need for robust evaluation by RCT where appropriate. Important outcomes for future evaluations should include the impact on and experiences of the people the collaborations aim to assist, on staff from the agencies involved, as well as health-related outcomes for patients.

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