Title:

Multidisciplinary team meetings in community mental health: a systematic review of their functions

Authors and affiliations:

Caoimhe Nic a Bhaird, Department of Psychiatry, Yale University, 300 George St., Suite 901 New Haven, CT 06511, USA

Correspondence to: c.bhaird@ucl.ac.uk

Penny Xanthopoulou, Exeter Medical School, University of Exeter, Exeter, EX2 4SG, UK.

Georgia Black, Department of Applied Health Research, University College London, London, WC1E 7HB, UK

Susan Michie, UCL Centre for Behaviour Change, University College London, 1-19 Torrington Place, London, WC1E 7HB, UK

Nora Pashayan, Department of Applied Health Research, University College London, London WC1E 7HB United Kingdom

Rosalind Raine, Department of Applied Health Research, University College London, London, WC1E 7HB, UK

Author biographies

Caoimhe Nic a Bháird is a Visiting Assistant in Research at the Yale Department of Psychiatry and doctoral researcher at the Department of Applied Health Research, University College London.

Penny Xanthopoulou is a Research Fellow at Exeter Medical School, University of Exeter.

Georgia Black is a Research Associate at the Department of Applied Health Research, University College London.

Susan Michie is Professor of Health Psychology and the Director of the UCL Centre for Behaviour Change and its Health Psychology Research Group, University College London.

Nora Pashayan, is Senior Clinical Lecturer at the Department of Applied Health Research, University College London.

Rosalind Raine is Professor of Health Care Evaluation and Head of Department at the Department of Applied Health Research, University College London.

Abstract

Purpose

Previous research has identified a need for greater clarity regarding the functions of multidisciplinary team (MDT) meetings in UK community mental health services. We aimed to identify the functions of these meetings by systematically reviewing both primary research and academic discussion papers.

Design

Papers relating to adult Community Mental Health Teams (CMHTs) in the UK and published between September 1999 and February 2014 were reviewed and appraised using NICE quality checklists. The search was broad in scope to include both general CMHTs and specialist CMHTs such as Early Intervention Psychosis services and forensic mental health teams. A thematic synthesis of the findings was performed to develop an overarching thematic framework of the reported functions of MDT meetings.

Findings

Of 4046 studies identified, none directly investigated the functions of MDT meetings. However, 49 mentioned functions in passing. These functions were categorised into four thematic domains: discussing the care of individual patients; teamwork; team management; and learning and development. Several papers reported a lack of clarity about the purpose of MDT meetings and the roles of different team members which hindered effective collaboration.

Practical implications

Without clearly agreed objectives for MDT meetings, monitoring their effectiveness is problematic. Unwarranted variation in their functioning may undermine the quality of care.

Originality/value

This is the first systematic review to investigate the functions of CMHT MDT meetings in the UK. The findings highlight a need for empirical research to establish how MDT meetings are being used so that their effectiveness can be understood, monitored and evaluated.

Keywords

Multidisciplinary teams, teamwork

Classification

Literature Review

Background

Multidisciplinary teams (MDTs) are assumed to improve the quality of care by incorporating a range of professional perspectives into care planning (Department of Health, 1999, Wagner, 2004, Department of Health, 2007a). MDTs are widespread throughout the UK National Health Service (NHS) and have a long history in community mental health care in the form of Community Mental Health Teams (CMHTs). Despite a sustained emphasis on multidisciplinary care in UK mental health policy (Department of Health, 1998, Department of Health, 2001a, Department of Health, 2007b, Department of Health, 1995, Department of Health, 2009a), there has been little empirical investigation of MDT meetings, the formal mechanism for achieving this multidisciplinary collaboration.

There is limited national guidance on the objectives, organisational structure and processes of mental health MDT meetings, and policy has been inconsistent regarding what should be discussed. For example, conflicting policies state either that all cases should be discussed (Department of Health, 2002, Department of Health, 2010), that only complex cases should be discussed (National Health Service Executive, 1999, Department of Health, 1995), or that only 'significant' or 'important' decisions should be discussed (Department of Health, 2010). Consequently, the content, format and organisation of MDT meetings is largely locally determined (West et al., 2012, Department of Health, 1995), leading to wide variations (West et al., 2012).

The need for improved consistency of care in mental health services has been recognised by policy-makers. The Care Quality Commission has committed to developing definitions of 'what good looks like' in mental health care and is establishing an assessment framework of indicators to facilitate quality inspections (Care Quality Commission, 2013). The government has also recently announced plans for "an information revolution around mental health and wellbeing" (p. 11) to better monitor variation in provision (Department of Health, 2014b). A strong evidence base documenting current practices and challenges is necessary to support such quality improvement initiatives. This paper reports on a systematic review of the academic literature which was conducted to provide an overview of the functions of community mental health MDT meetings.

Method

The study was conducted in accordance with ENTREQ (ENhancing Transparency in Reporting the synthesis of Qualitative research) guidance (Tong et al., 2012) and PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidance where applicable (Moher et al., 2009).

Eligibility criteria

The term 'community mental health team' was defined broadly, to include specialist teams catering to older adults, Assertive Outreach Teams (AOTs), Early Intervention Services

(EIS), Home Treatment Teams (HTTs), Crisis Resolution Teams (CRTs) and memory clinics, as well as general CMHTs.

A number of inclusion and exclusion criteria were defined in order to determine the relevance of the papers to the review question (Table 1).

As the review aimed to collate the range of views regarding the purpose of MDT meetings, a diverse range of publication types was included. This included both *primary sources* which reported original research and *secondary sources* such as editorials and books. Secondary sources were treated as distinct in the analysis as they are not amenable to formal methodological quality assessment. Author comments from primary studies that were not derived directly from the data (e.g. commentary in the introduction sections of papers) were also reviewed in this way.

Two of the authors (CN & PX) piloted and refined the eligibility criteria by applying them together to a subset of 20 studies. Articles meeting all of the criteria were fully reviewed.

[Insert Table 1]

Data sources

The following databases were searched to identify relevant published academic papers: Medline, PsychINFO, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Embase, and Health Management Information Consortium (HMIC). The returned references were downloaded to EndnoteX7 (Thomson Reuters, Philadelphia, USA) bibliographic referencing software. Duplicate references were deleted. The citations of eligible papers were also searched and five expert clinical academics who have published in the field were contacted to identify additional relevant studies.

Search strategy

A scoping review was initially performed to identify the most relevant databases and the terminology to be used in the search strategy. Word clusters consisting of synonyms representing the concepts *multidisciplinary*, *team meeting*, *community*, and *mental health* were developed (Figure 1). Terms within clusters were combined using the operator 'or' and clusters were combined using the operator 'and'.

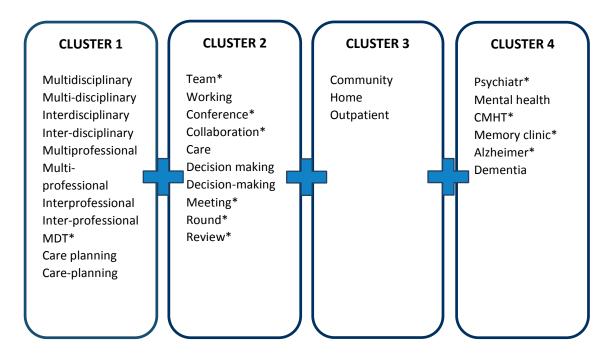


Figure 1. Search terms grouped into word clusters

The search was restricted to articles published between the 1st of September 1999 and the 17th of February 2014. In 1999 the Department of Health published the National Service Framework for Mental Health, which set out an agenda for improving mental health care in England (Department of Health, 1999). This initiated significant changes in how care was planned and delivered, therefore studies published after this date are likely to be of most relevance to current practice.

Screening

The review involved two stages of screening to exclude papers which did not meet the inclusion criteria: (i) title and abstract screening and (ii) full-text screening.

At the full text screening stage, the reasons for excluding any ineligible articles were recorded.

At each screening stage, 10% of the references were independently screened by a second reviewer (PX) for quality assurance.

Quality Assessment

Following the full-text screen, primary sources were evaluated using quality appraisal checklists developed by the National Institute for Health and Clinical Excellence (National Institute for Health and Clinical Excellence, 2012). The checklist for appraising *qualitative studies* and the checklist for appraising *quantitative studies reporting correlations and associations* were used. Using these checklists the studies were classified in the following manner:

- ++ indicates that all or most of the checklist criteria have been fulfilled, and where they have not been fulfilled the conclusions are very unlikely to alter;
- + indicates that some of the checklist criteria have been fulfilled, and where they have not been fulfilled or adequately described, the conclusions are unlikely to alter;
- indicates that few or none of the checklist criteria have been fulfilled and the conclusions are likely or very likely to alter.

A second reviewer independently quality assessed 50% of the eligible studies.

Data extraction

Study characteristics were recorded in a data extraction database (see Box 1). While the primary aim of the study was to identify the reported functions of MDT meetings, the search criteria were broad, and other findings and comments relating to the team meeting were also recorded.

1. Author	8. MDT Meeting functions identified by participants		
2. Year	9. MDT Meeting functions identified by authors		
3. Title	10. Barriers to effectiveness identified		
4. Design	11. Facilitators of effectiveness identified		
5. Participants	12. Effectiveness measures identified		
6. Team type	13. Comments about team meetings		
7. Aim/research	14. Summary of other relevant findings		
question	15. Recommendations for improving MDT meetings		
•			

Box 1. Study characteristics recorded in data extraction database

Data analysis

We conducted a thematic synthesis (Petticrew et al., 2013, Thomas and Harden, 2008) to develop an overarching thematic framework of the reported functions. The stages of thematic synthesis are outlined in Box 2 below.

Stage 1. Coding text

The relevant sections of included studies are entered verbatim into a database. Each sentence of text is inductively coded to capture its meaning and content.

Stage 2. Developing descriptive themes

Codes are grouped into a hierarchical tree structure based on similarities and differences. These groups of codes are labelled with a descriptive theme to capture the meaning of the grouping.

Stage 3. Generating global analytical themes

More abstract themes are inferred from the descriptive themes to address the review question.

Box 2. The stages of thematic synthesis (adapted from Thomas & Harden, 2008).

The relevant portions of text from each source were imported into NVivo9 (QSR International, Warrington, UK) qualitative analysis software for coding.

Results

The review process is illustrated in Figure 2. The electronic database search retrieved 5606 results. Citation searching identified an additional 48 papers. Once duplicates had been removed 4046 papers remained. Of the five experts contacted, four replied that they had no further papers to add. One suggested an additional paper which was found to be ineligible at the full-text screening stage.

On screening the titles and abstracts, 3808 papers were excluded, leaving 238 for full-text screening. At the full-text screening stage, 189 papers were excluded. The reasons for exclusion are provided in Figure 2. Two papers could not be accessed at the British Library or through contacting the journal's online editor.

Having excluded ineligible papers based on the full-text screen, 20 primary sources and 29 secondary sources remained.

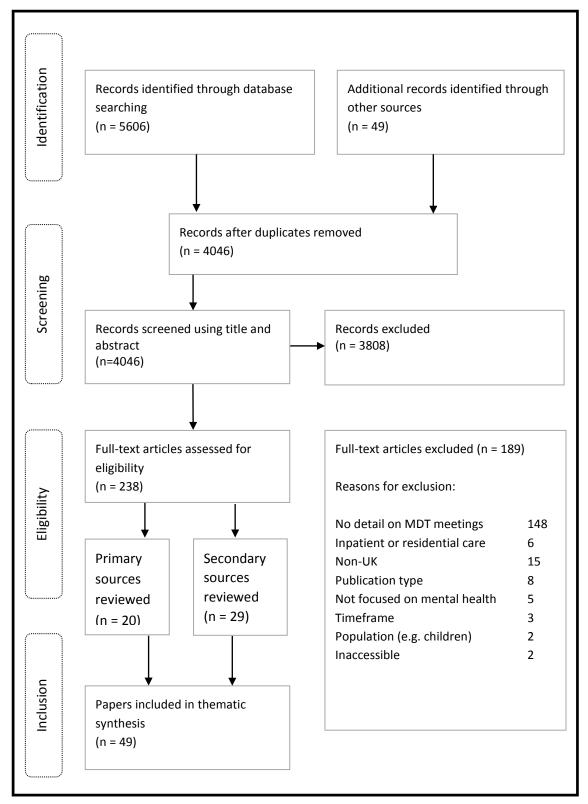


Figure 2. PRISMA flow chart illustrating systematic review process.

Agreement between reviewers

At the title and abstract screening stage, the second reviewer independently screened 400 (approx. 10%) of the titles and abstracts. Both reviewers reached the same conclusion in 97% of cases, giving confidence that the inclusion and exclusion criteria were robustly defined. Discrepancies related to 12 references and were due to a lack of clarity regarding whether certain specialist teams were within the remit of the review. Following discussion, we decided to include forensic teams and dementia home treatment teams, but to exclude teams focusing on intellectual disability due to their distinct policy and organisational context (Department of Health, 2001b, Department of Health, 2009b).

At the full text screening stage, the second reviewer independently screened 10% of the papers. Initially there were discrepancies between the reviewers regarding the inclusion of two papers, however, these were resolved by re-examining the papers in question to clarify terminology.

Quality assessment

All primary sources were of adequate quality for inclusion. Eleven were rated as "++" and nine were rated as "+", indicating that where checklist criteria were not fulfilled it was unlikely to have influenced the conclusions. There was only one discrepancy between reviewers, where a paper (Barlow, 2006) was rated as "-" by one reviewer and "+" by the other. Following discussion, it was agreed that the findings that were relevant to the current review were very unlikely to have been altered by the methodological limitations, and the study was therefore included.

Overview of included primary sources

Twenty primary sources were included in the review (Table 2). Nine were qualitative interview studies, three were surveys (with some open-ended questions) and seven used multiple methods. Eleven related to 'generic' CMHTs, two to home treatment teams, one to forensic teams, one to assertive outreach teams and four reported on multiple kinds of CMHT. Further detail on the methods and participants involved in the primary sources is provided as an Appendix.

[Insert Table 2]

Overview of included secondary sources

Thirty-one articles referred to the functions of MDT meetings but did not report on any relevant primary data, and so were analysed separately (Table 3). These secondary sources included 12 service descriptions, nine editorials, three books, one book chapter, one report from the Social Services Inspectorate and one systematic review. Five studies reporting primary data were also included in this section because, although they mentioned MDT meeting functions, this came from the authors' commentary rather than from the primary data collected.

Secondary sources discussed a more diverse range of teams than the primary sources. Nine related to CMHTs, six to AOTs, three to memory teams, three to Older Adults teams, two to EIS teams, one to a 'Focused Intervention Team', one to a CRT, and one to a combined 'Crisis Resolution and Home Treatment' team.

[Insert Table 3]

Thematic synthesis

None of the source articles directly investigated the functions of MDT meetings. They had other aims and most only mentioned MDT meetings briefly. Inductive coding of the relevant sections of text from the source articles produced 27 basic codes. These were grouped into eight descriptive themes, which in turn were clustered into five global themes. The first four themes represent four broad functions of MDT meetings in community mental health care:

- 1. Discussing the care of individual patients
- 2. Teamwork
- 3. Team management
- 4. Learning and development.

A fifth theme discusses findings relating to clarity of purpose. The thematic framework of MDT meeting functions constructed from the first four themes is presented in Table 4, which shows the basic codes and the number of papers in which each function was mentioned.

[Insert Table 4]

The functions described are not mutually exclusive; rather, they overlap, reflecting the different ways they have been conceptualised in the literature. For example, functions within the domain of 'teamwork' (e.g. sharing discipline-specific knowledge) can facilitate functions within the domain of 'discussing care of individual patients' (e.g. allocation to keyworker).

The thematic framework illustrates how meetings were perceived to be beneficial to both patients and staff. They served to benefit patients by allowing team members to elicit both specialist and generic input by discussing their cases with their colleagues. They served to benefit staff by facilitating both concrete tasks such as the distribution of work, and psychosocial processes such as peer support and learning. They also facilitated team processes such as management and supervision, which may be seen as benefiting patients indirectly by promoting the smooth running of the service.

The primary and secondary sources differed in focus. Staff development and empowerment, sharing the burden of the work, and peer-support were only mentioned in secondary sources, whereas primary sources tended to report more directly observable, practical tasks (e.g. discussion of new referrals).

In the following sections, each of the global themes is considered in turn.

Theme 1. Discussing the care of individual patients

Discussing the care of individual patients was the dominant theme. Where papers were more specific about the nature of these discussions, they could be organised into two further categories: discussions relating to transition periods and discussions relating to on-going care.

Discussing patients at transition periods

Teams were reported to use MDT meetings to define service boundaries when discussing patients experiencing transitions in their care pathways, such as the initial referral to the team, allocation to a care-coordinator, and discharge from the team (Simpson, 2007, Burns and Guest, 1999, Burns, 2006). Discussing new referrals was amongst the most frequently cited functions (Chisholm and Ford, 2004, King, 2001, McEvoy and Richards, 2007, Mohan et al., 2004, Simpson, 2007, West et al., 2012, Lawley et al., 2005, Mitchell and Patience, 2002, O'Brien and Burns, 2000, Simpson and de Silva, 2003). Several papers referred to the weekly MDT meeting as the "referral meeting" or the "allocation meeting" (Simpson and de Silva, 2003, Mitchell and Patience, 2002, King, 2001, Mohan et al., 2004).

Seven papers mentioned teams having discussions about which practitioner would be most suitable to work with a given patient (Lankshear, 2003, McCrae et al., 2008, Simpson, 2007, Burns, 2006, Ingram and Tacchi, 2004, Shajahan et al., 2006, Social Services Inspectorate, 2001). In theory, this decision was to be made by finding the most suitable match between a specific case and the expertise of a particular professional. In practice, however, Lankshear (2003) found that this thoughtful matching process was often bypassed, and it was assumed

that whoever had conducted the assessment would take the patient on to their caseload. In the words of one participant, "At one point if you were allocated [to do the initial assessment] it was generally accepted that you took that one on [to your caseload]. So people who were full up were saying 'No I'm not even going to assess it because, I can't, I haven't got the time to take it on" (p.460).

Resource constraints also affected admission to the service, with two studies reporting that team members sought out ways to decline or redirect referrals: "The team described how a considerable amount of time and effort was continuously spent, especially during referral meetings, on the process of finding ways of 'sharing unwanted cases' with other agencies" (King, 2001). A participant in a study on "gatekeeping" access to CMHTs stated that team members who personally found it hard to reject referrals would strategically present them at the meeting "so that other people may say, 'no that's primary health care' or 'no, you shouldn't be getting involved" (McEvoy and Richards, 2007; p.389). In this way, the MDT meeting could be used to provide a buffer for over-worked staff, allowing them to redefine and reinterpret their stated remit in light of their current workload and each presenting case.

Discussing on-going care

Meetings were described as an opportunity to share information, such as feedback on recent work (Barlow, 2006, Brown and Crawford, 2003, West et al., 2012), day-to-day difficulties and risks (Simpson, 2007, Thompson et al., 2008, West et al., 2012, Burns and Guest, 1999, O'Brien and Burns, 2000). Some papers described meetings being used as a forum for making group decisions about care plans or diagnoses (Mitchell and Patience, 2002, Page et al., 2008, Page et al., 2012, Uddin, 2006). Others described meetings being used to approve or confirm care plans and diagnoses that had already been made by individual team members (McEvoy and Richards, 2007, West et al., 2012, Mitchell and Patience, 2002, Simpson and de Silva, 2003).

Theme 2. Teamwork

Meetings were reported to facilitate teamwork in two distinct ways: first, by allowing team members to share specialist knowledge, and second, by allowing them to provide general peer support.

Though the meetings were described as an opportunity for "*multidisciplinary review*" (Burns et al., 2001, Burns, 2007), few papers investigated how multidisciplinary input was achieved in practice and several reported challenges in achieving effective multidisciplinary collaboration. One source of difficulty was a lack of clarity about the roles of different professional groups and the roles of the different team members (McCrae et al., 2008, Freeman et al., 2000). For example, Freeman and colleagues (2000) described how (Edwards et al., 2000)the allocation of tasks in MDT meetings was hampered by confusion regarding the role of support workers. Another challenge was the need to incorporate the expertise of different professional groups in a systematic and balanced manner. For example, in one study

there was a perception that discussions were sometimes overly-medical "I do get concerned at times when I come into team meetings and the discussion is all about what medication people are on. That's talked about a lot, and that disappoints me a bit" (Chisholm and Ford, 2004; p.29). Another paper emphasised that psychological ideas were shared with the team only informally, with psychologists occasionally "chipping in" with ideas rather than systematically providing a professional opinions (Christofides et al., 2012).

Other teamwork functions were unrelated to discipline-specific expertise; rather they related to general benefits of working in a team, such as sharing responsibility for decisions(Lawley et al., 2005) and facilitating cross-cover when a patient's keyworker was unavailable.(Cunningham and McCollam, 2001)Peer-support was a recurring theme among secondary sources. These highlighted the importance of creating a supportive environment (Ingram and Tacchi, 2004) and sharing the burden of care (Jones, 2002); "Through sharing and processing their thoughts and feelings, the team can progress the therapeutic work" (Lowe, 1999; p.18). In this way, meetings were conceptualised as a means of cultivating staff resilience, serving to benefit patients indirectly by increasing staff wellbeing.

Theme 3. Team management

Several papers mentioned that the team meeting was used for "business matters" or "team business" (Brown and Crawford, 2003, Brown et al., 2000, Chisholm and Ford, 2004, Donnison et al., 2009, Simpson, 2007, Burns and Guest, 1999). 'Business' was not explicitly defined, but service improvement functions such as audit and quality improvement were mentioned (Burns and Guest, 1999, Liberman et al., 2001, Brown and Crawford, 2003). The meeting was also reported to facilitate staff supervision (Burns and Guest, 1999, Chisholm and Ford, 2004, Ingram and Tacchi, 2004) and performance monitoring (Burns and Guest, 1999, Firn et al., 2013, Jones, 2002): "Meetings enabled far greater scrutiny of what key workers were doing with the clients" (Jones, 2002; p.263). Two primary sources stated that teams reviewed the minutes from their previous meetings (Simpson, 2007, Brown and Crawford, 2003), presumably to assess progress on agreed actions.

Theme 4. Learning and development

MDT meetings were perceived to be a forum for both formal and informal learning, and to provide opportunities for reflection on team functioning (West et al., 2012, Liberman et al., 2001, Molodynski and Burns, 2008). Participating in meetings was perceived to facilitate staff development and empowerment (Chisholm and Ford, 2004, Lawley et al., 2005, Singh, 2000, Liberman et al., 2001), and several papers mentioned formal professional development activities such as training sessions and presentations from external speakers taking place during their meetings (Chisholm and Ford, 2004, Brown and Crawford, 2003, Liberman et al., 2001, Burns and Guest, 1999).

Theme 5. Clarity of purpose

Several papers reported that team effectiveness was hindered by a lack of clarity regarding the purpose of MDT meetings (Brown and Crawford, 2003). Differences between 'official' rhetoric and the clinical experiences of staff led to difficulties in defining the boundaries of the service when deciding which patients should receive which kinds of support. For example, King (2001) reported that the definition of 'severe mental illness' in official documentation differed from how staff members understood it in practice, leading to difficulties in deciding which referrals to accept and which to decline. Similarly, Lankshear (2003) identified a disparity between the stated remit of teams and the needs of the local patients who were being referred.

Several authors argued that there was a need to explicitly discuss and reflect on the goals and philosophy of the team and the aims of the meeting (Chisholm and Ford, 2004, Brown and Crawford, 2003, West et al., 2012). One study reported that a lack of agreed policies regarding caseload management led to disputes over the allocation of work, and that tensions between members of different professional groups undermined collaboration (Simpson, 2007). A large mixed-methods study of 19 teams (West et al., 2012) found that the purpose of MDT meetings was usually left implicit and that it was not always clear if or when a decision had been reached. The authors recommended that meetings be structured by a clear agenda and led by a trained chairperson who summarises discussions and steers conversations towards an explicit decision.

Discussion

This is the first systematic review to collate views on the functions of MDT meetings in community mental health care. None of the papers identified explicitly investigated the functions of MDT meetings. The papers reviewed investigated a broad range of issues, from staff knowledge of NICE guidance to the prioritisation of referrals. In discussing these other aspects of community mental health care, they mentioned a number of functions that MDT meetings were perceived to serve. These fell into four broad domains: discussing the care of individual patients; teamwork; team management; and learning and development. However, in the midst of the wide range of functions identified, several papers reported a lack of clarity among staff as to the intended *purpose* of MDT meetings. The importance of having a clearly agreed purpose has long been emphasised in studies of healthcare team effectiveness (Carpenter et al., 2003, Onyett et al., 1997, Ling et al., 2012, Onyett et al., 1995, Peck and Norman, 1999a, Edwards et al., 2000). Without a clearly agreed purpose, meetings risk becoming an unfocused "catch-all" forum, which is used to address a wide range of issues that are not resolved elsewhere. The failure to define an explicit purpose also makes it precludes the possibility of evaluating the extent to which the purpose is being achieved. Consequently, it is difficult to determine whether MDT meeting is an effective use of practitioner time.

Ambiguity of purpose explain the results of a recent study which found that mental health MDT meetings produced fewer decisions than those cancer and heart failure, and were less likely to implement the decisions they did make (Raine et al., 2014). Low rates of decision-making may in part be a consequence of the relative lack of prescriptive policy and guidance on MDT working in mental health services compared with other healthcare contexts. In cancer care, for example, MDT meetings are nationally audited against a list of indicators specifying which patients should be discussed, which staff members should be in attendance, what administrative support should be available, and how decisions should be documented (Department of Health, 2000, National Peer Review Programme, 2013, National Cancer Action Team, 2013). The introduction of these standards has facilitated benchmarking and inter-team learning.(National Cancer Peer Review Programme, 2013).

In parallel with these policy developments, there has been a growing body of research focusing on cancer MDT meeting effectiveness (Stalfors et al., 2007, Blazeby et al., 2006, English et al., 2012, Wood et al., 2008) and a range of tools has been developed to help monitor and improve the quality of cancer MDT meetings, including discussion checklists, observational evaluation sheets and self-assessment questionnaires (Patkar et al., 2012, Taylor et al., 2012a, Lamb et al., 2011, Lamb et al., 2012, Taylor et al., 2012b). MDT meetings in mental health have not received the same level of attention. Because mental health policy is less explicit regarding the desired outcomes of MDT meetings, it is less clear how their effectiveness should be monitored.

In keeping with a broader political movement to grant mental health "parity of esteem" with physical health (Department of Health, 2014a), the UK government has recently announced plans to establish a Mental Health Intelligence Network (based on the National Cancer Intelligence Network) to monitor variations in care (Department of Health, 2014b). The findings of this review suggest that MDT meetings warrant careful consideration in this regard, given the lack of established best practice, confusion among practitioners regarding its purpose, and a lack of clarity regarding the roles of different team members. These meetings are resource-intensive, occupying the whole team for substantial periods of time each week, and inefficient meetings may have substantial opportunity costs in terms of time spent with patients and the total number of patients seen. Given the current lack of guidance, it is crucial that teams take the time to reflect on what they are trying to achieve in meetings and whether their organisational processes and procedures support this purpose. Team reflexivity, the extent to which a team explicitly discusses their objectives and processes and adapts them to changing circumstances (West, 2000), has been associated with improved team effectiveness, creativity and innovation, both in healthcare settings (West et al., 2012, Mickan and Rodger, 2005) and elsewhere (Schippers et al., 2012, Gurtner et al., 2007, Widmer et al., 2009).

Limitations

The findings of the review must be considered in light of a number of limitations. The search may not have identified all relevant papers. To ensure that the search was as comprehensive as possible, an inclusive search strategy was employed and experts with relevant clinical and research experience were contacted for advice. It is likely that some teams use MDT

meetings for purposes other than those reported in the literature, and some of the teams described in the literature may be atypical in terms of how they conduct their meetings. The extent to which these functions are 'representative' of all teams is therefore unclear. None of the reviewed papers directly asked participants what they perceived the functions of MDT meetings to be, and the list of functions identified therefore cannot be considered exhaustive. Rather, the review has collated and synthesised those functions that have been reported in the published UK research literature since the introduction of the National Service Framework for Mental Health

Areas in need of further research

The review has identified a number of gaps in the research literature to date. Most strikingly, it highlights a paucity of primary research investigating MDT meetings in community mental health care. Though a wide range of functions have been mentioned in the literature, the extent to which they vary across teams is unclear. None of the papers examined the effectiveness of teams in achieving the different functions identified or assessed whether participants considered these functions a valuable use of time. Such research would be valuable in guiding teams to organise and conduct their meetings in an effective manner. Furthermore, none of the papers reviewed involved patients as participants, thus what they expect from MDT meetings has yet to be established.

Though multidisciplinary working is now standard practice in mental health care, the review highlighted that many practitioners are unsure of the purpose of their meetings and the roles of different team members. Several authors called for teams to explicitly discuss MDT functioning to ensure a shared understanding among staff. Given that some papers reported tensions between different professional groups, it would be instructive to investigate whether perceptions of the purpose of meetings vary by professional group or levels of seniority. Making these agendas explicit may help to resolve ambiguity regarding the overall function of the meeting and suggest a method of organisation that best meets all team members' needs

Conclusion

The dearth of previous research and policy on MDT meetings in mental health suggests that the mechanism through which they are assumed benefit patients has been largely taken for granted. A clearer understanding MDT functioning is necessary to establish best practice and a consistent standard of high-quality, equitable care across mental health trusts requires. To this end, a solid research base is required to support evidence-based guidance and service evaluation. This review begins to address this issue by making explicit some of the taken-for-granted functions of MDT meetings. The findings can support practitioners and managers in reviewing and discussing which functions their team meetings currently serve, how well they are achieved, and how they should be prioritised with respect to time.

•	ta	

[1] We recognise that people have different preferences regarding the best term to use when referring to people who receive mental health services (e.g. service user, client, user, survivor, consumer, recipient, service attendee and patient). We use the term 'patient' here because surveys have found it to be the preferred term overall among such people in the UK (Simmons et al, 2010; Dickens and Picchioni, 2010).

Author contributions

CN designed the study, undertook the systematic search and thematic synthesis, and wrote the first draft of the paper.

PX independently screened and quality assessed a proportion of the reviewed papers, and contributed to writing and critically revising successive drafts of the paper.

GB contributed to writing and critically revising successive drafts of the paper.

RR, SM and NP contributed to the interpretation of results and critically revised successive drafts of the paper.

All authors approved the final draft.

Research Funding

This research was supported by NIHR Research Capability Funding allocated through University College London Hospitals NHS Foundation Trust and the UCL Graduate School through the Yale-UCL Collaborative Exchange Programme. The funders had no role in study design, data collection, data analysis, data interpretation or reporting of the study.

References

- Abendstern, M., Harrington, V., Brand, C., Tucker, S., Wilberforce, M. & Challis, D. 2012. Variations in structures, processes and outcomes of community mental health teams for older people: a systematic review of the literature. *Aging & Mental Health*, 16, 861-873.
- Agius, M., Shah, S., Ramkisson, R., Murphy, S. & Zaman, R. 2007. An early intervention for psychosis service as compared with treatment as usual for first psychotic episodes in a standard community mental health team. Basic concepts and the service. *Psychiatria Danubina*, 19, 5-9.
- Barlow, K. 2006. Perceptions of the role of the community psychiatric nurse. *Nursing Times*, 102, 34-38.
- Blazeby, J., Wilson, L., Metcalfe, C., Nicklin, J., English, R. & Donovan, J. 2006. Analysis of clinical decision-making in multi-disciplinary cancer teams. *Annals of Oncololgy*, 17, 457-460.
- Brown, B. & Crawford, P. 2003. The clinical governance of the soul: 'deep management' and the self-regulating subject in integrated community mental health teams. *Social Science & Medicine*, 56, 67-81.
- Brown, B., Crawford, P. & Darongkamas, J. 2000. Blurred roles and permeable boundaries: the experience of multidisciplinary working in community mental health. *Health Soc Care Community*, 8, 425-435.
- Burns, T. 2004. Community Mental Health Teams: A Guide to Current Practices, Oxford, Oxford University Press.

- Burns, T. 2006. An introduction to community mental health teams (CMHTs): how do they relate to patients with personality disorders? *In:* Sampson, M., McCubbin, R. & Tyrer, P. (eds.) *Personality Disorder and Community Mental Health Teams : A Practitioner's Guide.* Chichester, John Wiley & Sons Ltd.
- Burns, T. 2007. Community mental health teams. Psychiatry, 6, 325-328.
- Burns, T. & Guest, L. 1999. Running an assertive community treatment team. *Advances in Psychiatric Treatment*, **5**, 348-356.
- Burns, T., Knapp, M., Catty, J., Healey, A., Henderson, J., Watt, H. & Wright, C. 2001. Home treatment for mental health problems: a systematic review. *Health Technology Assessment*, 5, 1-139.
- Care Quality Commission 2013. A Fresh Start for the Regulation and Inspection of Mental Health Services, Newcastle upon Tyne, Care Quality Commission.
- Carpenter, J., Schneider, J., Brandon, T. & Wooff, D. 2003. Working in multidisciplinary community mental health teams: the impact on social workers and health professionals of integrated mental health care. *British Journal of Social Work*, 33, 1081-1103.
- Chisholm, A. & Ford, R. 2004. *Transforming Mental Health Care: Assertive Outreach and Crisis Resolution in Practice*, London, Sainsbury Centre for Mental Health.
- Christofides, S., Johnstone, L. & Musa, M. 2012. 'Chipping in': clinical psychologists' descriptions of their use of formulation in multidisciplinary team working. *Psychology and Psychotherapy*, 85, 424-435.
- Cunningham, G. & McCollam, A. 2001. Developing an assertive outreach service: from evidence to practice. *Managing Community Care*, 9, 30-37.
- Department of Health 1995. Building Bridges: A Guide to Arrangements for Inter-Agency Working for the Care and Protection of Severely Mentally Ill People, London, Department of Health.
- Department of Health 1998. Partnership in Action: New Opportunities for Joint Working between Health and Social Services, London, Department of Health.
- Department of Health 1999. *The National Service Framework for Mental Health: Modern Standards and Service Models*, London, Department of Health.
- Department of Health 2000. *The National Cancer Plan: A Plan for Investment, A Plan for Reform,* London, Department of Health.
- Department of Health 2001a. *Mental Health Policy Implementation Guide*, London, Department of Health.
- Department of Health 2001b. *Valuing People: A New Strategy for Learning Disability for the 21st Century*, London, Department of Health.
- Department of Health 2002. *Mental Health Policy Implementation Guide: Community Mental Health Teams*, London, Department of Health.
- Department of Health 2007a. Creating Capable Teams Approach (CCTA): Best Practice Guidance to Support the Implementation of New Ways of Working (NWW) and New Roles, London, Department of Health.
- Department of Health 2007b. New Ways of Working for Everyone: A Best Practice Implementation Guide, London, Care Service Improvement Partnership & National Institute for Mental Health in England.
- Department of Health 2009a. *New Horizons: A Shared Vision for Mental Health.*, London, Department of Health.
- Department of Health 2009b. Valuing People Now: A New Three-Year Strategy for People with Learning Disabilities, London, Department of Health.
- Department of Health 2010. Responsibility and Accountability: Moving on for New Ways of Working to a Creative, Capable Workforce, London, Department of Health.
- Department of Health 2014a. *Achieving Better Access to Mental Health Services by 2020*, London, Department of Health.
- Department of Health 2014b. *Closing the Gap: Priorities for Essential Change in Mental Health*, London, Department of Health.

- Dickens, G. & Picchioni, M. 2012. A systematic review of the terms used to refer to people who use mental health services: User perspectives. *International Journal of Social Psychiatry*, 58, 115-122.
- Donnison, J., Thompson, A. & Turpin, G. 2009. A qualitative exploration of communication within the community mental health team. *International Journal of Mental Health Nursing*, 18, 310-317.
- Edwards, D., Burnard, P., Coyle, D., Fothergill, A. & Hannigan, B. 2000. Stress and burnout in community mental health nursing: a review of the literature. *Journal of Psychiatric and Mental Health Nursing*, 7, 7-14.
- English, R., Metcalfe, C., Day, J., Rayter, Z. & Blazeby, J. 2012. A Prospective Analysis of Implementation of Multi-Disciplinary Team Decisions in Breast Cancer. *The Breast Journal*, 18, 459-463.
- Firn, M., Hindhaugh, K., Hubbeling, D., Davies, G., Jones, B. & White, S. 2013. A dismantling study of assertive outreach services: comparing activity and outcomes following replacement with the FACT model. *Social Psychiatry and Psychiatric Epidemiology*, 48, 997-1003.
- Freeman, M., Miller, C. & Ross, N. 2000. The impact of individual philosophies of teamwork on multi-professional practice and the implications for education. *Journal of Interprofessional Care*, 14, 237-247.
- Gregory, N. & MacPherson, R. 2006. The Gloucester assertive community treatment team: a description and comparison with other services. *Irish Journal of Psychological Medicine*, 23, 134.
- Gurtner, A., Tschan, F., Semmer, N. & Nägele, C. 2007. Getting groups to develop good strategies: effects of reflexivity interventions on team process, team performance, and shared mental models. *Organizational Behavior and Human Decision Processes*, 102, 127-142.
- Huxley, P., Evans, S., Munroe, M. & Cestari, L. 2008. Integrating health and social care in community mental health teams in the UK: a study of assessments and eligibility criteria in England. *Health and Social Care in the Community*, 16, 476-482.
- Ingram, G. & Tacchi, M. 2004. Service innovation in a heated environment: CATS on a hot tin roof. *Psychiatric Bulletin*, 28, 398-400.
- Jones, A. 2002. Assertive community treatment: development of the team, selection of clients, and impact on length of hospital stay. *Journal of Psychiatric & Mental Health Nursing*, 9, 261-270.
- Kennedy, P. & Griffiths, H. 2001. General psychiatrists discovering new roles for a new era ... and removing work stress. *The British Journal of Psychiatry*, 179, 283-285.
- Kent, A. & Burns, T. 2005. Assertive community treatment in UK practice: revisiting ... setting up an assertive community treatment team. *Advances in Psychiatric Treatment*, 11, 388-397.
- King, C. 2001. Severe mental illness: managing the boundary of a CMHT. *Journal of Mental Health*, 10, 75-86.
- Lamb, B., Sevdalis, N., Vincent, C. & Green, J. 2012. Development and evaluation of a checklist to support decision making in cancer multidisciplinary team meetings: MDT-QuIC. *Annals of Surgical Oncology*, 19, 1759-65.
- Lamb, B., Wong, H., Vincent, C., Green, J. & Sevdalis, N. 2011. Teamwork and team performance in multidisciplinary cancer teams: development and evaluation of an observational assessment tool. *BMJ Quality & Safety*, 20, 849-856.
- Lankshear, A. 2003. Coping with conflict and confusing agendas in multidisciplinary community mental health teams. *Journal of Psychiatric and Mental Health Nursing*, 10, 457-464.
- Lawley, D., Bestley, J., Talbot, A. & Hostick, G. 2005. The role of a consultant in old age psychiatry: experience of an adapted model of care. *Psychiatric Bulletin*, 29, 101-103.
- Liberman, R., Hilty, D., Drake, R. & Tsang, H. 2001. Requirements for multidisciplinary teamwork in psychiatric rehabilitation. *Psychiatric Services*, 52, 1331-1342.
- Ling, T., Brereton, L., Conklin, A., Newbould, J. & Roland, M. 2012. Barriers and facilitators to integrating care: experiences from the English Integrated Care Pilots. *Internatioal Journal of Integrated Care*, 12, 1-12.

- Lowe, J. 1999. A new model for a new challenge: Tulip Assertive Outreach Services. *Mental Health Review Journal*, 4, 17-19.
- McCrae, N., Banerjee, S., Murray, J., Prior, S. & Silverman, A. 2008. An extra pair of hands? A case study of the introduction of support workers in community mental health teams for older adults. *Journal of Nursing Management*, 16, 734-743.
- McEvoy, P. & Richards, D. 2007. Gatekeeping access to community mental health teams: a qualitative study. *International Journal of Nursing Studies*, 44, 387-395.
- Mickan, S. & Rodger, S. 2005. Effective health care teams: a model of six characteristics developed from shared perceptions. *Journal of Interprofessional Care*, 19, 358-370.
- Mitchell, F. & Patience, D. 2002. Conjoint multi-disciplinary assessment in a community mental health team: the impact on the social work role. *Social Work in Health Care*, 35, 605-13.
- Mohan, R., Slade, M. & Fahy, T. 2004. Clinical characteristics of community forensic mental health services. *Psychiatric Services*, 55, 1294-8.
- Moher, D., Liberati, A., Tetzlaff, J. & Altman, D. 2009. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA Statement. *PLoS Med*, 6, e1000097.
- Molodynski, A. & Burns, T. 2008. The organization of psychiatric services. *Medicine*, 36, 388-390.
- National Cancer Action Team 2013. *National Cancer Peer Review Programme Manual for Cancer Services: Haemato-oncology Cancer Measures*, London, National Cancer Action Team.
- National Cancer Peer Review Programme 2013. Cancer Services 2012/2013: An Overview of the Findings from the 2012/2013 National Peer Review of Cancer Services in England, Leeds, NHS Improving Quality.
- National Health Service Executive 1999. *Effective Care-Coordination in Mental Health Services: Modernising the Care Programme Approach*, London, National Health Service Executive.
- National Institute for Health and Clinical Excellence 2012. *Methods for the Development of NICE Public Health Guidance*, London, National Institute for Health and Clinical Excellence.
- National Peer Review Programme 2013. National Peer Review Report: Cancer Services 2012/2013: An overview of the findings from the 2012/2013 National Peer Review of Cancer Services in England, London, NHS Improving Quality.
- O'Brien, A. & Burns, T. 2000. Approaches in psychiatric care in the community in the UK. *Arab Journal of Psychiatry*, 11, 81-87.
- Onyett, S., Pillinger, T. & Muijen, M. 1995. *Making Community Mental Health Teams Work: CMHTs and the people who work in them*, London, Sainsbury Centre for Mental Health.
- Onyett, S., Pillinger, T. & Muijen, M. 1997. Job satisfaction and burnout among members of community mental health teams. *Journal of Mental Health*, 6, 55-66.
- Orme, S. 2001. Intensive home treatment services: the current position in the UK. *In:* Brimblecombe, N. (ed.) *Acute Mental Health Care in the Community: Intensive Home Treatment* London, Whurr.
- Page, S., Hope, K., Bee, P. & Burns, A. 2008. Nurses making a diagnosis of dementia: a potential change in practice? *International Journal of Geriatric Psychiatry*, 23, 27-33.
- Page, S., Hope, K., Maj, C., Mathew, J. & Bee, P. 2012. 'Doing things differently': working towards distributed responsibility within memory assessment services. *International Journal of Geriatric Psychiatry*, 27, 280-285.
- Patkar, V., Acosta, D., Davidson, T., Jones, A., Fox, J. & Keshtgar, M. 2012. Using computerised decision support to improve compliance of cancer multidisciplinary meetings with evidence-based guidance. *BMJ Open*, 2, e000439.
- Peck, E. & Norman, I. 1999a. Working together in adult community mental health services: exploring inter-professional role relations. *Journal of Mental Health*, 8, 231-242.
- Peck, E. & Norman, I. 1999b. Working together in adult community mental health services: exploring inter-professional role relations. *Journal of Mental Health*, 8, 231-243.
- Petticrew, M., Rehfuess, E., Noyes, J., Higgins, J., Mayhew, A., Pantoja, T., Shemilt, I. & Sowden, A. 2013. Synthesizing evidence on complex interventions: how meta-analytical, qualitative, and mixed-method approaches can contribute. *Journal of Clinical Epidemiology*, 66, 1230-1243.
- Poole, R. & Higgo, R. 2008. *Clinical Skills in Psychiatric Treatment*, New York, Cambridge University Press.

- Raine, R., Wallace, I., Nic a Bháird, C., Xanthopoulou, P., Barber, J., Lanceley, A., Clarke, A., Livingston, G., Prentice, A., Ardron, D., Harris, M., Michie, S., Blazeby, J. M., Gibbs, S. & Ferlie, E. 2014. Improving the effectiveness of multidisciplinary team meetings for patients with chronic diseases: a prospective observational study. *Health Services and Delivery Research*, 2.
- Rhodes, L., Genders, R., Owen, R., O'Hanlon, K. & Brown, J. 2010. Investigating barriers to implementation of the NICE guidelines for depression: a staff survey with community mental health teams. *Journal of Psychiatric and Mental Health Nursing*, 17, 147-151.
- Schippers, M., West, M. & Dawson, J. 2012. Team reflexivity and innovation: the moderating role of team context. *Journal of Management*, 41, 769-788.
- Shajahan, P., Forde, F., McIntosh, M., Moffat, V. & Munogee, P. 2006. Redesigning a community mental health team. *Psychiatric Bulletin*, 30, 269-271.
- Simmons, P., Hawley, C. J., Gale, T. M. & Sivakumaran, T. 2010. Service user, patient, client, user or survivor: describing recipients of mental health services. *The Psychiatrist*, 34, 20-23.
- Simpson, A. 2007. The impact of team processes on psychiatric case management. *Journal of Advanced Nursing*, 60, 409-418.
- Simpson, C. & de Silva, P. 2003. Multi-disciplinary team assessments: a method of improving the quality and accessibility of old age psychiatry services. *Psychiatric Bulletin*, 27, 346-348.
- Singh, S. 2000. Running an effective community mental health team. *Advances in Psychiatric Treatment*, 6, 414-422.
- Singh, S., Fisher, H. & Cournos, F. 2004. A specialist early intervention for first-episode psychosis. *Psychiatric Services*, 55, 942-943.
- Social Services Inspectorate 2001. *Inspection of Mental Health Services: London Borough of Hounslow*, London, Department of Health.
- Stalfors, J., Lundberg, C. & Westin, T. 2007. Quality assessment of a multidisciplinary tumour meeting for patients with head and neck cancer. *Acta Oto-laryngologica*, 127, 82-87.
- Taylor, C., Atkins, L., Richardson, A., Tarrant, R. & Ramirez, A.-J. 2012a. Measuring the quality of MDT working: an observational approach. *BMC Cancer*, 12, 1-10.
- Taylor, C., Brown, K., Lamb, B., Harris, J., Sevdalis, N. & Green, J. 2012b. Developing and testing TEAM (Team Evaluation and Assessment Measure), a self-assessment tool to improve cancer multidisciplinary teamwork. *Annals of Surgical Oncology*, 19, 4019-4027.
- Thomas, J. & Harden, A. 2008. Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Medical Research Methodology*, 8, 45.
- Thompson, A., Donnison, J., Warnock-Parkes, E., Turpin, G., Turner, J. & Kerr, I. 2008.

 Multidisciplinary community mental health team staff's experience of a 'skills level' training course in cognitive analytic therapy. *International Journal of Mental Health Nursing*, 17, 131-137.
- Tong, A., Flemming, K., McInnes, E., Oliver, S. & Craig, J. 2012. Enhancing transparency in reporting the synthesis of qualitative research: ENTREQ. *BMC Medical Research Methodology*, 12, 181.
- Uddin, M. 2006. Making progress in mental healthcare: the crisis resolution and home treatment service for Leicestershire County. *Diversity in Health & Social Care*, 3, 289-299.
- Wagner, E. 2004. Effective teamwork and quality of care. Med Care, 42, 1037-1039.
- West, M. 2000. Reflexivity, revolution and innovation in work teams. *In:* Beyerlein, M., Johnson, D. & Beyerlein, S. (eds.) *Product Development Teams*. Stamford, CT, JAI Press.
- West, M., Alimo-Metcalfe, B., Dawson, J., El Ansari, W., Glasby, J., Hardy, G., Hartley, G., Lyubovnikova, J., Middleton, H. & Naylor, P. 2012. Effectiveness of Multi-Professional Team Working (MPTW) in Mental Health Care. Final Report. NIHR Service Delivery and Organisation Programme.
- Whicher, E. & Abou-Saleh, M. 2009. Service development: developing a service for people with dual diagnosis. *Mental Health and Substance Use: Dual Diagnosis*, 2, 226-234.
- Widmer, P., Schippers, M. & West, M. 2009. Recent devlopments in reflexivity research: a review. *Psychology of Everyday Activity*, 2, 2-11.

Wood, J., Metcalfe, C., Paes, A., Sylvester, P., Durdey, P., Thomas, M. & Blazeby, J. 2008. An evaluation of treatment decisions at a colorectal cancer multi-disciplinary team. *Colorectal Disease*, 10, 769-72.

Appendix. Methods of reviewed primary sources

[Insert Appendix Table]