Primary mental health workers in child and adolescent mental health services

Wendy Macdonald BSc PhD
Research Fellow, National Primary Care Research and Development Centre, University of Manchester, Manchester, UK

Sally Bradley BSc
Research Associate, Academic Department of Child and Adolescent Psychiatry, Imperial College School of Medicine, London, UK

Peter Bower BSc PhD
Senior Research Fellow, National Primary Care Research and Development Centre, University of Manchester, Manchester, UK

Tami Kramer MBBCh MRCPsych
Clinical Lecturer, Academic Department of Child and Adolescent Psychiatry, Imperial College School of Medicine, London, UK

Bonnie Sibbald BSc MSc PhD
Professor, National Primary Care Research and Development Centre, University of Manchester, Manchester, UK

Elena Garralda MD MPhil DPM FRCPsych
Professor of Child Psychiatry, Academic Department of Child and Adolescent Psychiatry, Imperial College School of Medicine, London, UK

Richard Harrington MD MPhil FRCPsych
Professor of Child Psychiatry, Child and Adolescent Psychiatry, Department of Psychiatry, University of Manchester, Manchester, UK

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Correspondence:
Wendy Macdonald,
NPCRDC,
5th floor, Williamson Building,
University of Manchester,
Manchester M13 9PL,
UK.
E-mail: wendy.macdonald@man.ac.uk

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Background. The interface between primary care and specialist services is increasingly seen as crucial in the effective management of child and adolescent mental health (CAMH) problems. In the United Kingdom, a new role of primary mental health worker (PMHW), has been established in order to achieve effective collaboration across the interface through the provision of clinical care in primary care settings and by improving the skills and confidence of primary care staff. However, little is known about the development of this innovative role in service contexts. Issues raised during the early stages of implementation may have important implications for the preparation and development of professionals who undertake the role.

Aims. The aim of this paper is to report on a study that examined key issues in implementation of the PMHW role in six health authorities in England.

Methods. Case study evaluation was conducted, using thematic analysis of 75 qualitative interviews with key stakeholders from different professions (e.g. PMHWs, general practitioners, health visitors, psychiatrists and service managers)

and representing different sectors (primary care, specialist services and community child health services).

Findings. The study identified three models of organization (outreach, primary care-based and teams). Each was associated with different advantages and disadvantages in its effects on referral rates to specialist services and the development of effective working relationships with primary care providers. Problems associated with accommodation and effective integration of PMHWs with specialist services, and tensions caused by the two different roles that PMHWs could undertake (direct clinical care vs. consultation-liaison) were common across all sites.

Conclusions. The PMHW role is an important development that may go some way towards realizing the potential of primary care services in CAMH. The implementation of new roles and models of working in primary care is complex, but may be facilitated by effective planning with primary care providers, clear goals for staff, and a long-term perspective on service development.

Keywords: children, adolescents, mental health, primary care, consultation-liaison, nurses

Introduction

Surveys in the United Kingdom (Melzer *et al.* 2000) and elsewhere (Offord *et al.* 1987, Richardson *et al.* 1996, Prior *et al.* 1999) suggest that between 15 and 20% of children and adolescents have clinically important emotional disorders. Such disorders are associated with significant reductions in the quality of life for children and families (Audit Commission 1999, United States Public Health Service 2000).

A variety of specialist mental health professionals are needed to address the complexity of child and adolescent mental health (CAMH) problems (Health Advisory Service 1995) but, in many health care systems, primary care providers govern access to these specialists (Starfield 1994, Richardson *et al.* 1996, Kramer & Garralda 1998, Boerma & Verhaak 1999). The effectiveness of such 'gatekeeping' is limited by the variable skills and interest of primary care staff (Rawlinson & Williams 2000, Weeramanthri & Keaney 2000). Improving recognition and management in primary care, and appropriate referral to specialist services, are thus priorities for many health care systems worldwide (Health Advisory Service 1995, Tsiantis *et al.* 1996, 2000, United States Public Health Service 2000, World Health Organisation 2001, Puura *et al.* 2002).

Although mental health care systems differ widely between countries, there are common strategic approaches to supporting primary care provision and improving its interface with specialist services. Analyses in the United States and Europe have identified three key strategies (Pincus 1987, Gask *et al.* 1997, Van der Feltz *et al.* 1997, Bower & Sibbald 2000, Pincus *et al.* 2002): education of primary care staff (Tsiantis *et al.* 2000, Sebuliba & Vostanis 2001); locating specialist providers in primary care settings to provide treatment (Finney *et al.* 1989, Appleton & Hammond-Rowley 2000); and consultation-liaison, where patients are managed by primary care professionals, who are themselves supported by specialist staff (Neira-Munoz & Ward 1998, Appleton & Hammond-Rowley 2000). Each approach is predicted to have different advantages and disadvantages, but empirical evidence on cost-effectiveness is sparse (Gask *et al.* 1997), especially in CAMH services (Bower *et al.* 2001). In addition, little is known about the process of implementing these different approaches in routine service settings (Schoenwald & Hoagwood 2001).

Both primary care nurses (Stevenson 1990, Elkan *et al.* 2000), and specialist mental health nurses (Raphel 2001) have a vital part to play, but their precise role will be shaped by wider organizational structures and strategies, as well as local circumstances. A key issue is the appropriate balance between time given to direct patient care, and that given to supporting primary care providers (Gask *et al.* 1997, Audit Commission 1999, Katon *et al.* 2001).

Child and adolescent mental health care in the United Kingdom

In the United Kingdom, outpatient CAMH services are structured in three tiers (Health Advisory Service 1995). Tier 1 consists of primary care professionals such as health visitors (HVs) and general practitioners (GPs), who are expected to identify problems, manage less severe problems, conduct health promotion, and refer severe problems to tier 2

(individual specialist CAMHS staff) or tier 3 (multidisciplinary specialist CAMHS staff) (Audit Commission 1999).

An influential report (Health Advisory Service 1995) proposed that work at the interface between tier 1 and tiers 2/3 would be facilitated by the introduction of a new role, the primary mental health worker (PMHW). This role was to be filled by specialist mental health nurses or other tier 2 workers, who would potentially use all three strategies for improving primary care provision: education and training; treatment in primary care; and consultation-liaison.

Recent research suggests that 8% of general practices have access to a PMHW (Bower *et al.* 2003), and between 40 and 50% of all PMHWs are nurse specialists (Lacey 1999). Little, however, is known about the process of implementation of these new roles or what factors have influenced the balance between direct care provision and education/support for other staff.

Although the PMHW role has developed in the United Kingdom, evidence on these issues is of potential relevance to any health care system seeking to improve effective collaboration across the interface. Our aim was to gain insight into these issues through qualitative case studies. Study sites were selected from a national postal survey of CAMHS services (Bower *et al.* 2003), so that the qualitative research might extend knowledge gained through the previous quantitative research (Morgan 1998).

The study

Aim

The aim of the study was to explore the process of implementation of PMHW services, in order to understand:

- the structure of current CAMH services (e.g. numbers of PMHW staff).
- the processes involved in provision (e.g. referral pathways and rates).
- the outcomes (e.g. perceived advantages and disadvantages of PMHWs).

Design

Qualitative case study evaluation (Keen & Packwood 1995) was chosen as the optimal approach for illuminating previous quantitative surveys of PMHWs, because of its focus on participants' views, context and process (Murphy *et al.* 1998).

Site selection

Criteria for site selection in case study evaluation are critical (Keen & Packwood 1995). Data from previous surveys of primary care (Bower *et al.* 2003) and specialist settings were used to define sites with high and low levels of working at the interface between primary care and specialist providers. Sites were sampled from the extremes of this distribution. During the visits, it became clear that high levels of were dependent on the presence of PMHWs, and the six sites (numbered 3–8) with PMHWs are the focus of this paper.

Participants

The interviewees were purposively sampled to include key stakeholders from different professions and different sides of the primary care-specialist services interface. The use of key informants is often a preferred way of ensuring selection of respondents with appropriate knowledge (Morse 1994). Table 1 describes the participants at each site.

Data collection

Semi-structured interviews ($n = 75$) were used to collect data. Interviews were carried out at the participant's workplace during 2001 and lasted 30–105 minutes. The interviews were audio-taped and transcribed. Four of the authors (TK, SB, PB and WM) carried out the interviews. The interview schedule aimed to elicit information about the structure and process of providing services, with questions such as 'Can you describe the services provided locally for children and adolescents with mental health problems that present to primary care?' There were also questions about outcomes, for example, 'What are the strengths and weaknesses of these services?'

Table 1 Respondents in the study

	Site					
Professionals	3	4	5	6	7	8
Managers	3	1	1	2	2	4
Primary mental health workers	4	4	2	2	2	2
Consultant psychiatrists	1	1	2	2	1	2
Clinical psychologists	1	1	2	1	1	1
Community paediatricians	1	1		1		1
General practitioners	2	1	2	2	1	4
Health visitors		2	3	2	1	3
School support worker					1	
Social worker					1	
School nurse						1
Total	12	11	12	12	10	18

Ethical considerations

At the time the study was conducted (2001), specific ethical approval was not required for interviews with professionals. Consent was sought orally, and all respondents were guaranteed anonymity.

Data analysis

The interview schedule was based around the three aims of the study: (i.e. service structure, process and outcome). Modifications were made after analysis of initial interviews. Early transcripts were read by the interviewers and one researcher devised a coding framework. All interviewers had spent considerable time in the field and their agreement with the codes following reading of early transcripts provided support for the framework used for analysis of the data. The transcripts were checked against the coding framework to avoid significant omissions, and finally all transcripts were analysed line by line to allocate data to the categories. This first-level coding was done by hand initially and then organized with the support of a word processing package. The data categories were grouped together (second level coding) into core categories or themes. This groups the first-level coding into a smaller number of analytic units. Because of resource constraints the first-level coding was not checked by other team members.

Findings

Two main themes relating to PMHWs emerged:

- the organization of PMHWs (i.e. management, location, relationships with tier 3).
- the role of PMHWs (i.e. direct clinical care and consultation-liaison).

Each theme is described below and illustrated with respondent quotes, identified by site and profession.

Organization of PMHWs

Within this theme three main models were identified.

(a) PMHWs as an outreach service of tier 3 (outreach) and managed by the CAMH team (sites 5 and 7).

(b) PMHWs based in primary care with some contact with tier 3 (sites 4 and 8).

(c) PMHWs working in teams, managed independently of primary care or tier 3 (sites 3 and 6).

Within this theme – the organization of PMHWs – key themes of general interest in all models will be described, followed by issues specific to each model?

General issues

In one of the outreach sites there was little evidence of planning prior to the implementation of new services. This lack of understanding about needs at tiers 1 and 2 had proved problematic:

> I was at a conference…one authority they had spent quite a bit of time on a theoretical level, where they'd had a year or two years going into it all and doing all this planning and discussion. We went straight out and they didn't really know anything about us…if you're asking somebody to engage in a community you really need to know your community and its needs. (PMHW, site 5)

In some sites it appeared that the workers had been expected to design the service themselves, leading to difficulties between tiers. Some PMHWs were left feeling like the *'meat in the sandwich' (PMHW, site 8)* and would have welcomed a service that had been set up following negotiation about the aims, objectives and remit of PMHWs.

In contrast, in both sites with PMHW teams, consultation with primary care was a significant part of the process of implementation. This interviewee considered that this had increased relevance to tier 1 staff:

> I spent almost a year consulting with primary care and I met with GPs and health visitors and school nurses, social services, disciplines at all levels, management and practitioner levels and spent a year doing a consultation exercise, looking at what primary care wanted from a CAMHS service. (PMHW, site 6)

There was evidence that finding suitable accommodation was easier in sites where primary care providers had been consulted.

Specific issues

Model (a): Outreach from tier 3

In this model, PMHWs tended to regulate access to tier 3 by supporting primary care staff (through consultation-liaison) to work with families and by treating less complex cases themselves. Referral rates were perceived to be reduced, although there may have been a subsequent increase in complexity. Primary care staff reported valuing the support they received from PMHWs and perceived CAMH services as less distant as a consequence. However, they were likely to experience frustration with attempts to regulate referral. Where GPs were expected to filter referrals (i.e. to decide which is appropriate for tier 2 or 3) there were occasional difficulties:

> GPs try to bypass the waiting lists by seeing me, but partly they still have to learn the criteria for referring to our team. (PMHW, site 5)

The application of this model was made difficult and led to feelings of isolation for PMHWs who worked in primary care or community settings but were still viewed as outreach workers from tier 3 by primary care professionals. These feelings were at times compounded by suspicion about the potential for increases in workload. In all sites, tier 3 staff had long waiting lists and many working at tier 1 were concerned that the PMHW would increase their workload and responsibilities by expecting them to work with families for longer, albeit with the support of the PMHW. Not all tier 3 teams were supportive of their PMHW colleagues, and were concerned that they might increase their referrals:

'Why the hell are you coming in here, you're advertising our services. We've got a huge waiting list and you're going out there telling people about our services'. There was a real fear that it would increase referrals…Then, the first months going out, I encountered a lot of angry people in tier 1. A bit of that from both sides, I became the brunt of it. (PMHW, site 7)

Outside of the time spent in CAMHS settings, 'outreach' PMHWs were often located in inappropriate settings with little administrative support. Even when rooms were found there were sometimes questions from primary care staff about the appropriate use of scarce resources:

I think it has to be considered, 'Where is the space?', so they don't feel we intrude on them. There was one GP when we first started, I think it was difficult to understand the concept of it, he said, 'If you are using our space, who is going to pay for it?'. It was like we were wanting the clinic there rather than working together. (Psychiatrist, site 5)

Model (b): Based in primary care

There was evidence from the interviews that this model increased referrals to tier 3 in some sites, although rates remained relatively unchanged in others. The PMHWs based in primary care had also experienced some of the difficulties faced by outreach workers, such as finding suitable accommodation:

We had major difficulties in actually finding him premises, he is based with one of the GP practices but it's taken quite a while. So it does feel on one hand sometimes as though the GPs in particular really are terribly keen to have PMHWs, but are not prepared to help with things like premises to enable that to happen. (Clinical Psychologist, site 4)

However, once these problems were overcome, many PMHWs, GPs and HVs talked about the advantages of working in the same building, particularly in relation to the opportunity to liaise informally over cases.

Model (c): PMHW teams

In contrast to the effects found in 'outreach' models, tier 3 teams in these sites reported that both the number of referrals to CAMHS and their complexity had increased:

The complex ones that they filter out have increased, so everybody's workload has increased…it's not made life easier in tier 3, you know. Waiting lists are still a significant problem, we now don't get a mix of relatively straightforward GP referrals and complex cases, we just have wall-to-wall complex challenging cases which the tier 2 service feels that it can't manage. But…3 or 4 times as many children are getting a service as did before, so we see that as a significant success. (Psychiatrist, site 3)

In both sites where this model operated, the teams were seeing a sizeable number of families, some of whom would have been referred to CAMHS before, but it was clear that they were also uncovering unmet needs. All the PMHWs interviewed at these two sites had a clear understanding of their role and had protocols that defined their responsibilities and boundaries:

The team has three main functions. One is direct work with children and families, around emotional and behavioural issues – up to eight sessions…Two, we filter through to the tier 3 CAMH services, those cases which are not appropriate to be seen at tier 2, because of severity, chronicity or complexity…The third thing that we do is, we do consultation and training to tier 1 professionals, so we meet regularly with all the different health visiting teams in our area. (PMHW team manager, site 3)

The protocols were helpful in ensuring that tier 1 and 3 workers had a clear understanding of the remit of the PMHW team and to some degree they protected the teams from being overwhelmed by referrals. There was also evidence that the team model involved changes to traditional management practices in CAMH:

So it's a much more managed team than tier 3 teams, because in addition to the clinical supervision, there's line management supervision, which looks at, you know, case management, much more in the line of social services management. It looks at case management issues and overload and when you're discharging cases…you know, 'Why do you think you need another two sessions with this family?' (PMHW team manager, site 3)

One advantage of PMHW teams was the opportunity for peer support, but links with tier 3 were generally thought to be essential in all models. Links were maintained in a number of ways: basing PMHWs at tier 3, basing them in the community but having a regular day in tier 3, or having one PMHW represent all other tier 2 workers at tier 3. However, all PMHWs had some links with tier 3 and valued this. There

was a concern that without these links they might become isolated and unsupported.

However, there was some tension between the need for a close relationship with CAMHS and the need to develop a similar relationship with primary care staff:

Because we're well integrated into the CAMH service, it feels that we're well supported…I think probably to maybe just be more in primary care – (in terms of physical location and management structures)…like I said, it's a strength that we're well integrated into tier 3 but maybe that could be a weakness as well for people outside. (PMHW, site 7)

Role of PMHWs

The role of PMHWs varied along two dimensions:

- the degree to which they provided direct patient care.
- the amount of support they gave to primary care professionals (i.e. consultation-liaison).

In one site the PMHW did not undertake any direct patient care, whereas in the other five sites PMHWs undertook both activities. However, in the latter the balance differed.

In general, tier 3 workers were eager for PMHWs to provide consultation-liaison to primary care professionals, and thus reduce the number of less complex cases referred to tier 3 and provide opportunities for primary and secondary prevention at tier 1. In contrast, tier 1 professionals valued PMHWs having a direct patient care role and welcomed the fact that they removed some of the burden from primary care staff.

Direct patient care

Direct patient care generally involved brief individual therapy. There was some variation in the number of sessions provided by PMHWs: one service used a maximum of five sessions, another eight. Improving access was an issue, and one PMHW was appointed with the intention of reducing the 'did not attend' (DNA) rate by seeing families in their local surgery:

It would be people who they have not been able to get them to access coming to the clinic for one reason or another…And also the other focus was on the DNA rates, because these were the families that we'll refer them and then they wouldn't come. So it was really trying to look at another way of trying to engage the family so they could access our services, really. (PMHW, site 5)

Other PMHWs described roles that were more general in aspiration:

I suppose to be an advocate for children and families who are experiencing these sort of difficulties…And to provide the service that's helpful and meaningful and helps empower people themselves, because a lot of the time they're doing the things themselves and just need a, I see it as being sort of like a guide, really. (PMHW, site 3)

Support of primary care professionals – consultation-liaison

There were a number of examples of consultation-liaison approaches:

To enable, I suppose, people outside CAMHS to be aware of what they can do and do usefully and do with confidence. 'Cause sometimes I get, you know, people ringing up and saying, 'Am I doing the right thing?', and I say, 'Yeah, that's right, this is a good way to approach it'. And then there's quite a lot of relief and they feel then they're doing good instead of harm. (PMHW, site 4)

However, the delivery of consultation-liaison was often problematic because of resistance from tier 1 professionals, which reflected concerns about workload and expertise:

Cause it's difficult sometimes – by the time you've come to refer it, you've actually said, 'I don't know what to do here, it's outside my expertise', or 'My HV can't manage to cope with this anymore', and you actually are passing it on to somebody else, rather than saying 'We need lots of support to still be able to do it'. (GP, site 8)

The PMHWs noted the gap between the desire to increase the role of primary care staff and the realities of capacity in primary care:

I think you have to…deal very sensitively, because it's very easy for managers to have this lovely idea of health advisory…more work should be going on in tier 1, but actually when you look at the caseloads that health visitors have…I think one has to be very cautious before we turn round to a health visitor who's already over burdened and say, 'By the way, we'd just like you to do four more sessions of behavioural work'. (PMHW, site 4)

There was also a clear distinction between the sorts of services that PMHWs wanted to implement, and the perceived needs of primary care staff:

Don't assume that people will be grateful for consultative services – they're not. What they want is more 'hands on'…What they want is actually the same thing as many specialist tier 3 teams want…they want a team that's double in size, they want a shorter waiting list. (Health Authority representative, site 7)

One clear outcome of this tension was the need to develop effective consultation-liaison over time, using direct service provision as a way of building relationships with tier 1 staff, which could then be used as a mechanism to implement changes:

I'm now in the second year. I think last year I would have taken those cases immediately, whereas this year what I tend to do is to go back

to the referrer more often and say, 'Let's me and you think about this'. And the outcome of that may be they do some, some work, some detailed, focused work. (PMHW, site 4)

The necessity of this stepwise approach was not immediately apparent to staff whose experience of primary care may have been quite limited, and this highlighted the need for effective preparation of staff for the realities of working in primary care:

There's enough people who've done the job before me who sort of cautioned me that in the first year or two, it's best to actually just take on the referral and show your goodwill through that, and then maybe next time… (PMHW, site 4)

Most tier 1 professionals talked about feeling overwhelmed by demand and were initially wary of PMHWs, and there was evidence that tier 1 professionals were more likely to engage in consultation-liaison if the PMHW was also carrying a caseload.

The organization of PMHWs also affected the delivery of consultation-liaison. One PMHW talked about how demanding it was as a single PMHW to return all requests for advice. For others who worked in teams it was easier to offer regular, structured liaison:

We do [consultation-liaison] three ways. One is by the telephone. If the person rings up and it's quite complex, then we'll often offer a face-to-face…and talk in more detail. And then a third level of consultation is that we might involve somebody else, and that might be the client, it might be the family, it might be the psychiatrist, it may be another professional. (PMHW, site 7)

A significant finding in relation to PMHWs was the kind of experience and skills needed to fill this kind of post, which may differ from the clinical skills seen as crucial for effective direct treatment provision. This was particularly pertinent to consultation-liaison:

I think you need to have quite a lot of sort of 'oomph' and confidence as a tier 2 professional to be able to provide consultation to a HV, let alone a GP or somebody else'. (Child mental health programme manager, site 3)

Another issue was the use of language in the presentation of PMHW posts, which might raise tensions among primary care staff if the relationship was seen as supervisory rather than collaborative:

I think we've made mistakes along the two years in, sort of, using jargon that people don't understand…we've made mistakes in using the term 'supervision and consultation', which has been threatening to people…people have felt, 'Oh, they're going to tell us off', or 'They're going to watch us' and 'It's going to be punitive'. (PMHW, site 3)

It was also noted that skill development would not necessarily be appropriate for all primary care professionals:

Because sometimes you're flogging a dead horse with some of these people when you're training them, you're thinking, some people are…thinking, 'Well, I just weigh babies, why do I want to know about this?' Let's go with people who are up for it. (PMHW Team Manager, site 3)

Although targeting education makes practical sense, such targeting raises familiar concerns that those least motivated for further education and involvement in CAMH may be those whose skills are in most need of improvement.

Discussion

Limitations of the study

The study represents an example of 'problem-oriented' health services research, which is concerned with practical rather than theoretical considerations (Harding & Gantley 1998). Nevertheless, the validity of the data generated requires discussion. As with any interview-based study, the ability of the research to answer some questions (e.g. current service provision) was often limited by participant knowledge, and the description of services cannot be taken as an accurate summary of all that is available. Equally, data on the effects of different models on service delivery (such as referral rates) were almost entirely based on professionals' reports. Little documentary evidence was available and data could not be effectively triangulated. Feedback from informants might have provided the opportunity for 'reflexive elaboration' (Emerson 1981), but because of time constraints there was no formal attempt at respondent validation.

A second issue is generalizability. Although not all qualitative research seeks to generalize, its usefulness in health services research is to some degree dependent on the relevance of data beyond the particular settings studied (Murphy *et al.* 1998). Some issues raised by the current research may relate to the particular implementation of models in each study site rather than general features of each model, or may be particular to the United Kingdom and will not generalize to other health care systems. In addition, interviewees were identified based on recommendations from other staff, and their views may not generalize to other members of their professional group. Although some staff from education and social services were interviewed (and their data are included in this paper), resource limitations meant that the focus was on

health service staff, which means that the findings are necessarily partial. Service users were not involved in the case studies, and thus a crucial perspective on service provision has been omitted.

Models of PMHW organization – advantages and disadvantages

Three models of PMHW organization were evident, with varying advantages and disadvantages. A key difference between the models was the function of the PMHW service in relation to demand for care (i.e. referrals to tier 3). Where tier 3 staff were explicit that they had set up the primary care service to reduce referrals (i.e. outreach models), that tended to be the outcome. However, where PMHWs were set up to uncover need (i.e. PMHW teams and some sites with PMHWs in primary care settings), referrals increased. A previous survey (Lacey 1999) also reported variation in the effect of PMHWs on referrals in different sites. There is an obvious tension between the desire to increase access to specialist tiers, and to ensure that the demand is appropriate and targeted at those in greatest need.

Issues relating to effective implementation, such as problems with accommodation and ensuring links to tier 3, were also identified in relation to each model, although the exact nature of the problems differed between models. Outreach models had obvious benefits in relation to links with tier 3, but accommodation difficulties were more pronounced. Developing relationships with primary care staff may be more difficult in such models, and this has implications for the effectiveness of consultation-liaison services. However, the advantages of close co-operation with primary care staff has to be set against disadvantages for PMHWs in terms of their close liaison with colleagues in tier 3. This tension may have important implications for how the PMHW role is viewed and accepted by professionals on either side of the primary care-specialist services divide.

Direct patient care and consultation-liaison

Direct patient care in primary care settings was a PMHW role in most sites. This was evidently popular with primary care staff and should increase access to effective treatment. However, a recent systematic review (Bower *et al.* 2001) suggested that there was only meagre evidence from *primary care populations* on the effectiveness of interventions, and there is an obvious need for controlled trials to evaluate the provision of brief treatments by PMHWs to patients recruited and treated in primary care settings.

Consultation-liaison approaches are theoretically more cost-effective (Gask *et al.* 1997). As well as assisting the primary care professional in the management of the immediate presenting problem, consultation-liaison should impact on the skills of tier 1 staff, and thus improve care for clients. However, at present these benefits remain theoretical, and the systematic review found only a single study of consultation-liaison in CAMH which did not provide strong evidence of enduring change in practitioner behaviour (Neira-Munoz & Ward 1998). There was evidence in our case studies that support and advice from consultation-liaison was appreciated by some primary care staff, although the benefits in terms of enduring practitioner change and eventual patient benefit were unclear.

Whatever the evidence of effectiveness, the major barrier to consultation-liaison was acceptability to tier 1 staff, who generally did not react favourably to taking on extra work which they saw as the responsibility of specialists, especially when referral was seen as an expression of lack of expertise or confidence. Effective consultation-liaison cannot be imposed on primary care staff, and implementation may be facilitated by a number of factors (Gask & Croft 2000, Bower & Gask 2002). The present study highlighted the following:

- good preliminary negotiation and planning with primary care staff in setting up PMHW posts.
- flexibility in the mix of direct work and consultation-liaison in the early stages of service development, in order to develop effective working relationships and goodwill among tier 1 staff.
- providing accommodation for PMHWs close to tier 1 staff.
- good interpersonal skills of PMHWs involved in services development, and education and preparation in effective provision of advice and support.

Conclusions

There is significant interest worldwide in the development of models of care that can improve the provision of CAMH services through more effective relationships between primary care and specialist services. Implementation of the PMHW role in primary care in the United Kingdom is one approach, and highlights key issues which may have wider relevance beyond the United Kingdom. In addition, this new post raises a number of issues relating to the roles, education and development of professionals (such as nurses) who are expected to take on this innovative work. Further research is required to examine the PMHW role, in order to identify the factors that facilitate effective working at the interface between specialist and primary care services. Only then will

What is already known about this topic

- The accessibility and effectiveness of child and adolescent mental health services in the United Kingdom are dependent on effective working at the interface between primary care and specialist services.
- In the United Kingdom, a new role of primary mental health worker has been established to assist in working at the interface.
- Although surveys have indicated that nurses are often designated as primary mental health workers, little is known about the exact nature of these posts, and the process of their implementation.

What this paper adds

- Primary mental health worker implementation uses one of three models, which differ in terms of location, organization and purpose.
- Primary mental health worker roles involve varying amounts of direct patient care, and support for primary care (consultation-liaison).
- A number of tensions in the implementation of these roles were identified, including accommodation, negotiation about service development, and differing views on demand management.

the desired outcomes in terms of the well-being of vulnerable children and families be achieved.

Author Contributions

All listed authors have contributed directly to this study and this paper. PB, TK, BS, EG and RH contributed to the study conception and design. WM, SB, PB and TK were responsible for the data collection and WM, SB and TK contributed to the data analysis. WM and PB were responsible for drafting the paper and PB, TK, BS, EG and RH were involved in revising the manuscript.

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