PSYCHOLOGICAL AND PSYCHOSOCIAL INTERVENTIONS FOR IMPROVING THE MENTAL HEALTH OF WOMEN ADMITTED TO MOTHER AND BABY UNITS IN THE UNITED KINGDOM

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ABSTRACT

Objective: To explore whether and what type of structured psychological interventions to improve mental health were offered to women admitted to Mother and Baby Units in the United Kingdom (UK).

Background: Mother and Baby Units (MBUs) in the UK allow for joint admissions of mothers and their babies in situations when a mother is experiencing severe mental health problems that require assessment and intervention. In addition to one-to-one, formulation-driven psychological therapy, a variety of structured and manualised psychological interventions may be suitable for use in this context. An overview of interventions being offered would allow for sharing of best practice.

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Method: As part of this questionnaire-based survey, 17 MBUs in the UK were contacted and ward staff were asked to provide information on structured psychological interventions that they offered to mothers on their ward. Information on barriers to and facilitators of offering structured psychological interventions was also collected.

Results: Ten (58%) MBUs completed the survey. Most offered several different psychological interventions in addition to one-to-one, formulation-driven therapy. As expected, interventions varied according to clinical psychology expertise and patient need. Staff in seven of the ten MBUs surveyed said that they were interested in offering more in the way of psychological interventions to improve maternal mental health. However, staff also identified challenges to implementing these interventions, including some mothers being too unwell or reluctant to engage and their patients' relatively short admission times.

Conclusions: This survey identified a number of psychological and psychosocial interventions that were used on MBUs to improve maternal mental health. Given the challenges of delivering interventions on MBUs, the flexible delivery of any interventions was highlighted to meet the needs of the mothers amidst ward acuity.

Keywords: Psychiatric inpatient; service evaluation; survey; mothers; mental health

INTRODUCTION

The antenatal and postnatal period is a time when the risk for women of developing mental health problems is significantly increased: up to 20% of women will develop mental health problems during this period, some of these women developing a serious mental health difficulty (such as postpartum psychosis which affects 2 women in every 1000 births) which may require a period of inpatient admission on a psychiatric unit [1]. In the UK, specialist psychiatric units called Mother and Baby Units (MBUs) enable mothers in need of psychiatric assessment and intervention to be admitted alongside their babies [2,3]. Joint admission allows the mothers' mental health problems to be addressed, and any associated risk to be managed, whilst enabling the mother-infant relationship to be supported. The average admission time to an MBU is approximately 50 days [4].

The service standards for MBUs set out by the Quality Network for Perinatal Mental Health Services and the Royal College of Psychiatrists [5] includes a requirement that MBUs offer psychological interventions in accordance with the evidence base and good practice and provide training for staff to enable the provision of a range of psychological interventions including cognitive and behavioural techniques, brief psychotherapy techniques, family interventions and counselling. As admissions are relatively brief, this means that any psychological support needs to

focus largely on a) assessment and/or signposting to other (outpatient) psychology services and b) any psychological intervention may need to be brief during admission or have the option of being continued after MBU discharge on an outpatient basis. In addition to one-to-one formulation-driven psychological therapy, a variety of structured and often manualised psychological interventions, focusing on mental health, may be suitable for use in this context. However, the service standards previously described do not currently recommend any specific interventions of this type and it is not known to what extent these are feasible for this service context. A previous study looking at psychological and psychosocial interventions to promote the mother-infant relationship identified that UK MBUs offer a range of psychological and psychosocial interventions which appeared to reflect MBU patient needs and staff training and preferences [4], suggesting that there may be regional variation in the interventions MBUs provide. Thus, the aim of this survey was to gain better insight into which, if any, structured or manualized psychological interventions were offered by MBUs across the UK. We also asked ward staff which additional interventions they would like to be able to offer to mothers.

MATERIALS AND METHODS

This survey was approved by the local National Health Service (NHS) audit department. We devised a questionnaire to obtain information on the service (e.g., number of beds, average length of stay, etc.) and any structured psychological interventions being offered. We also asked staff if there was potential to expand their current provision of structured psychological interventions and what they believed were the barriers to and facilitators of offering interventions. All MBUs in the UK (n=17) were contacted by email and telephone between September 2016 and February 2017 in conjunction with another survey [6]. Descriptive statistics were used to present the data.

RESULTS

Ten (58%) of the 17 MBUs contacted responded. In most cases, both ward managers and clinical psychologists were interviewed to obtain all the details necessary to complete the survey. The mean number of beds across participating MBUs was 7, ranging from 5 to 11 beds. The average length of stay was around 6 weeks (ranging from 4 to 8 weeks).

MBUs reported that mothers were admitted to them with a range of mental health problems (as first episodes or relapses) including postpartum psychosis, postpartum depression, bipolar disorder, PTSD, severe anxiety or bonding difficulties.

Current provision of interventions

As there were relatively few examples of moderately to highly structured or manualised interventions being used on the MBUs, information was collected on all psychological/ psychosocial interventions being offered that a) targeted maternal mental health and b) went beyond one-on-one, individualized, formulation-driven psychological work often offered by clinical psychologists. Table 1 gives the number of psychological interventions reported for each MBU. For ease of interpretation, interventions were allocated to categories according to whether they were highly structured, moderately structured, loosely structured or informal, fluid or offered on an ad-hoc basis. Interventions classified as highly structured are those in which a set number of sessions were delivered, with specified content in a specific order, over a set time-period. The delivery of these interventions was supported by a manual and often by other specific paper-based materials. An example of this was a 'Managing Stress and Anxiety' group offered on MBU 1, which consisted of three weekly sessions, each of which had pre-specified content. Delivery of this intervention was supported with accompanying manuals or guides and patient handouts. Interventions that were classified as moderately structured had regular sessions, had specific topics or techniques that were delivered over the course of the intervention but with flexibility in the order in which these components were delivered. They may not be supported by a manual or paper-based material, or materials may be brought in as and when needed. An example of a moderately structured intervention was the 'Managing Emotions' intervention offered by MBU 3, which was delivered regularly in one-hour-sessions, but its content, instead of being pre-specified and delivered in a particular order, was generated (at a time before the meeting) by the patient group. Interventions were classified as loosely structured if they met regularly, often for a set time, and where the general focus or activity remained consistent. An example of an intervention in this category was a music therapy group offered on MBU 2. Interventions classified as fluid or unstructured were those that consisted of regular sessions with a general focus, but for which the agenda was decided on the day by the mothers attending. Peer-support sessions also fell into this category. Ad-hoc interventions refers to any intervention offered by staff (usually nurses) who had received training in psychological approaches (e.g.,

cognitive behavioural therapy (CBT), mindfulness, relaxation or compassionate-mind approaches) and applied these techniques with their clients (either one-to-one or in groups) as and when necessary/ possible.

Table 2 provides descriptive information on the interventions offered by the MBUs in the survey (e.g., theoretical basis or approach, aspects of delivery such as frequency and length of sessions, etc.).

Table 1: Table illustrating the types of psychological interventions offered on MBUs (n = 10).

	Highly structured interventions (n)	Moderately structured interventions (n)	Loosely structured interventions (n)	Fluid/ unstructured interventions (n)	Ad-hoc interventions (n)	Total n of interventions (excluding ad-hoc interventions)
1	3	0	0	0	0	3
2	0	0	1	1	5	0
3	0	1	0	2	0	0
4	0	0	0	0	4	0
5	0	3	0	0	0	0
6	0	1	0	0	0	1
7	1	0	0	0	1	1
8	0	1	2	0	1	0
9	1	0	1	0	0	0
10	0	0	0	0	0	0

Table 2: Table summarizing key features of psychological/psychosocial interventions offered by participating MBUs (n = 10).

	N interventions (offered by *n* MBUs)
Type of intervention	
Highly structured	5 (*3*)
Moderately structured	5 (*4*)
Loosely structured	4 (*3*)
Fluid	3 (*2*)
Ad-hoc	11 (*4*)
Perinatal mental health specific	
Yes	8 (*6*)
No	19 (*8*)
Theoretical basis/ approach	

CBT	4 (*5*)
Maternal identity & the transition to motherhood	2 (*2*)
Attachment & bonding	1(*1*)
CFT	2 (*2*)
DBT	1(*1*)
Mindfulness	5 (*4*)
SFBT	1 (*1*)
Relaxation	1 (*1*)
Narrative therapy	2 (*2*)
IPT	1 (*1*)
SLT	1 (*1*)
Integrative	3 (*1*)
No specific theoretical basis/ none specified	4 (*2*)
Source (only including moderately to highly structured interventions- n = 10)	
Developed in house	8 (*5*)
Externally sourced	1 (*1*)
Externally sourced and then adapted to suit context and client pop	1 (*1*)
Accessible to (excluding ad-hoc interventions)	
Patients on all psychiatric inpatient wards but accessed by mothers on MBU	2 (*1*)
All mothers on MBU	14 (*8*)
Only specific groups of mothers	2 (*2*)
Delivery- group/ individual (excluding ad-hoc interventions)	
Group	14 (*6*)
Individual	5 (*1*)
Mix	7 (*5*)
Delivery- number of sessions (excluding ad-hoc interventions)	
3-5	3 (*2*)
6-8	3 (*3*)
12	2 (*2*)
Ongoing	7 (*4*)
3*year	1(*1*)
unclear	1(*1*)
Delivery- length of sessions	
Not specified	10 (*5*)
45 mins- 1 hour	2 (*2*)
>1 hours < 2 hours	2 (*1*)
> 2 hours	1 (*1*)

1/2 of the sessions 60-90 mins, 1/2 30-40 mins	1 (*1*)
Delivery- frequency	
Weekly	14 (*7*)
Bi-weekly	1 (*1*)
Less than bi-weekly	1 (*1*)
As required	7 (*4*)
Unclear	1 (*1*)
Facilitated by	
Assistant Psychologist	1 (*1*)
Assistant Psychologist and a Childcare Practitioner	1 (*1*)
Consultant Clinical Psychologist, Assistant Psychologist, RMN	1(*1*)
Occupational Therapist	7(*3*)
Staff Nurses	7 (*4*)
Clinical Psychologist	5 (*3*)
Clinical Psychologist and Life Skills Recovery Worker	1 (*1*)
Clinical Psychologist and Specialist Midwife	1 (*1*)
Not specified	1 (*1*)
Materials required	
Manual/ guide/ workbook for participants	4 (*2*)
Training manual for group facilitator	1 (*1*)
Handouts	8 (*5*)
No materials	4 (*3*)
No info given	8 (*4*)
Video clips	1 (*1*)
Audio- guided meditation	1 (*1*)
Variety of written materials as required	5 (*2*)
External training obtained	
No- any training in house only	12 (*6*)
Yes	12 (*9*)
Not specified	2 (*2*)

Across the ten MBUs, a broad range of interventions were provided, grounded in a variety of theoretical approaches. They included psycho-education for stress and anxiety, relaxation and mindfulness for stress-reduction, CBT-based approaches to managing anxiety and stress (including desensitization and thought-challenging), emotional coping skills sessions based in dialectical behaviour therapy (DBT), short solution-focused therapy (SSFT), narrative therapy-based groups, peer-support groups, an interpersonal therapy (IPT)-informed communication-skills

intervention, compassion-focused interventions and parenting-based psychological interventions. Most of these ten MBUs offered a number of these. Most of the interventions were group-based and ran regularly; only one MBU delivered these interventions on a solely ad-hoc basis. One MBU did not provide any additional psychological interventions to mothers on the ward. The reasons cited for this was the lack of a clinical psychologist who could lead on developing this side of the service and that current nursing staff had not received any training in the delivery of any specific psychological interventions and therefore lacked confidence. The ward manager stated that money for such training was available; however, staffing levels at the time meant that it was difficult to release staff for this training.

Whilst some of the psychological/psychosocial interventions delivered on the MBUs were either fairly structured or quite structured (e.g., the 'Managing Stress and Anxiety' group or the 'Adjusting to Motherhood' group), many of the interventions were delivered in a flexible fashion, as and when appropriate, according to the needs of those mothers admitted to the ward at the time. For other interventions, the focus and content of the intervention was not pre-determined but decided by the clients, either before or at the beginning of the session itself. All MBU professionals emphasized the importance of interventions being delivered flexibly given fluctuating maternal mental health presentations and ward acuity.

Planned service provision and future aspirations

Staff interviewed at two of the MBUs were satisfied with their current provision of psychological interventions targeted at improving maternal mental health. In the case of two other MBUs ward managers stated that they were currently satisfied with provision on their ward, but the clinical psychologist's opinion differed, stating that there was scope for the service to offer more. Three MBUs were introducing new psychological or psychologically informed interventions in the near future but the focus of these was on the mother-infant-relationship and/or infant mental health rather than maternal mental health. Staff on seven of the MBUs stated that they were interested in offering more in the way of psychological interventions targeting maternal mental health. Staff on three of these MBUs made specific suggestions of group-based interventions (with varying foci) that could potentially be delivered in the form of a structured or manualised psychological intervention. For example, the ward manager of one MBU which at the time of our survey was not able to offer much in terms of psychological interventions was keen to get staff trained so that

they could offer a 'psycho-educational' group, an anxiety-management group and/or a relapse prevention group. The ward manager of another MBU expressed an interest in running a DBT group; the clinical psychologist of one MBU stated that they would like to offer a mindfulness group and a Compassion-Focused Therapy-informed group (CFT-focused approaches were being used a lot in this clinical psychologist's one-to-one work with mothers). At the time the survey was conducted, one MBU was in the process of setting up the delivery of two structured, manualised group-based interventions. The first of these focused on relapse prevention and the second on emotion regulation, based on DBT. These sessions were developed with the ward environment in mind. At the time of writing this report, both groups had been running on this MBU.

Barriers and facilitators

Staff from all ten MBUs that took part in this survey identified a range of barriers to or challenges of offering structured psychological interventions/packages and also to expanding provision of psychological interventions more generally, in the MBU setting. These barriers/challenges were: 1) The diversity within the patient group in terms of diagnosis, stage of recovery, life circumstances/experiences and educational background; 2) the relatively short length of admission; 3) (relevant to the delivery of group-based interventions only) unpredictable group dynamics and (related to the above) insufficient time to form supportive, cohesive groups; 4) the acute nature of mothers' symptoms which can make it difficult for them to engage with psychological interventions; 5) the difficulty in finding an appropriate 'treatment window' when the mother was well enough to engage but was also present on the ward for sessions (i.e., as soon as a woman is well enough, she is likely to be being encouraged by ward staff to go on outings and home visits); 6) related to the above, a possible reluctance in mothers, once their mental state improved sufficiently, to engage with psychological interventions, because mothers often expressed a desire to wanting to be discharged as soon as possible and/or looking after the baby; 7) insufficient funding to pay for training of staff; 8) staffing levels which can impact on the capacity to release staff for training in psychological intervention and on their ability to use this training to deliver psychological interventions once trained; and 9) the dominance of the medical model in NHS services, leading to a relatively lower status for psychological treatments.

One of the clinical psychologists being interviewed stated that whilst structured or manualised interventions reassured MBU professionals and allowed professionals other than the psychologist to deliver them, mothers required

a client-centred approach, one tailored to the mother's specific needs during her process of recovery and acceptance of what has happened.

Staff also identified a number of facilitators that allowed them to embed psychological and psychosocial interventions into their service. These included the desire amongst MBU staff to provide the best possible service for mothers. MBUs also valued information shared by the Quality Network for Perinatal Mental Health Services which connects professionals working in this area and enables a sharing of information on best practice. Finally, MBU staff reported that mothers on MBUs expressed an enthusiasm for psychological interventions.

DISCUSSION

The current survey is the first to be conducted specifically focusing on structured psychological and psychological interventions to improve the mental health of mothers currently being used on UK MBUs. As well as collecting data on what is being offered in the way of interventions above and beyond one-to-one formulation-driven work, information was also collected on staff opinions regarding the use of structured interventions in this context, barriers to and facilitators of this, and ideas for future development in this area.

The inpatient population of the MBUs that took part in this survey was similar, in terms of the mental health diagnoses represented, to that represented in previous surveys of UK MBUs. The mean number of beds was comparable to previous survey data [4,7]; however, average length of admission was shorter [4,7]. The findings suggest that MBUs offered a variety of psychological/psychosocial interventions in addition to one-to-one formulation-driven interventions, some of which were more structured.

The interventions, which were commonly delivered in a small group format, focused on increasing women's capacity to manage stress and difficult emotions, developing parenting skills, facilitating adjustment to the maternal role, reducing their self-criticism and encouraging self-compassion, and helping them develop a positive personal narrative. Different psychological theories were drawn on including CBT, attachment/bonding theory, theories of maternal identity and transition to the maternal role, IPT, theories of compassionate love, DBT, theoretical models of mindfulness and compassion-focused mindfulness, SSFT narrative therapy and theoretical models of coping. Some interventions were described as integrative. Creative therapies involving art or music were also offered on two of the MBUs. Clinical psychologists or assistant psychologists under the supervision of clinical psychologists delivered the

majority of interventions, but some were delivered by other members of staff (occupational therapists and nurses). The type of therapeutic intervention delivered was expected to vary given variations in staff expertise and patient group needs. Although structured and manualised interventions would be easier to export and may have the advantage of it being easier to ensure that effective components (or components that are thought to be effective) are delivered, there are contextual factors peculiar to this particular setting and patient group (e.g., relatively short admission time, diversity of patient background) that are likely to mean that any structured interventions have to have an in-built flexibility. Staff on many of the MBUs expressed a desire to expand the range of psychosocial interventions they were offering in addition to one-to-one work.

However, the following limitations of the study should be acknowledged. Firstly, as the response rate was 58% and different MBU staff members completed this survey, information might be missing or inaccurate. We also did not collect information on intervention engagement by mothers, which could have provided useful information on intervention acceptability, feasibility or effectiveness. We also do not know the extent to which this information is recorded by MBUs. Further MBU-related research into interventions may be required. An example of this kind of work are two studies [8, 9] which investigated the acceptability and feasibility of the Baby Triple P Positive Parenting Programme on a UK mother and baby unit.

In conclusion, this study, another addition to a range of studies related to MBUs [4, 6-12], captured the varied nature of structured and semi-structured interventions being delivered on MBUs in the UK. The findings can be used to drive further innovation to enhance mental health outcomes for the women requiring an inpatient psychiatric admission with their infant.

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CONFLICT OF INTEREST

The authors would like to declare that they do not have any financial interests or any conflicts of interest.

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