MumsAid evaluation

Highlights report, May 2019

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Background

The National Institute of Clinical Excellence (NICE)[1] reports that 15-20% of women are affected by depression and anxiety in the first year after childbirth, with postpartum psychosis affecting up to 0.2%. NICE stresses the importance of early detection and management of mental health problems during pregnancy and in the postnatal period. The annual costs of perinatal mental health problems in the UK are estimated at £8.1 billion[2]. However, good mental health support is not always available for mothers and there are regional variations in provision. The Maternal Mental Health Alliance (MMHA) and the Royal College of Psychiatrists[3] found that 26 per cent of NHS areas had no professional perinatal mental health services at all.

For this reason, local services to support specialist maternal mental health support are of vital importance. MumsAid is a registered charity operating in the London Borough of Greenwich. It provides free counselling (provided by trained counsellors and psychotherapists) for women experiencing mental or emotional difficulties in pregnancy or after having a baby. The aim is to improve clients' mental health, wellbeing, confidence in parenting, and the bond between mother and baby (if/where this may be a problem).

The purpose of this brief evaluation report is to analyse and describe the findings from the MumsAid dataset. In particular, this report describes the potential impact of MumsAid and evaluates the effectiveness of the service for clients who present with complex needs.

Methodology

Monitoring and outcomes data have been collected from MumsAid clients throughout the service's history. MumsAid aims to collect data from clients at four time points; at baseline (i.e., when clients enter the service, prior to therapy), data after therapy has been completed, data at 'follow-up', i.e., three months and six months after completion of therapy. The following scales are collected:

1. Postnatal depression symptoms, as measured by the Edinburgh Postnatal Depression Score (EPDS)[4]. This scale was designed to identify women with post-natal depression and is a widely used for screening purposes. It consists of ten questions rated on a score of 0-3 (maximum=30). A total score of 12 or higher indicates the possibility of clinical depression.

2. Perception of stress, as measured by the Perceived Stress Scale (PSS)[5]. This scale is designed to understand the extent to which life situations are appraised as being stressful. The scale consists of ten questions rated on a score of 0-4 (maximum=40). Scores ranging from 14-26 on the scale would be considered 'moderate' perceived stress. Scores ranging from 27-40 would be considered 'high' perceived stress.

[1] National Institute of Clinical Excellence (2018). Antenatal and postnatal mental health: clinical management and service guidance. https://www.nice.org.uk/guidance/cg192

[2] Bauer, A., Parsonage, M., Knapp, M., Iemmi, V., & Adelaja, B. (2014). The costs of perinatal mental health problems. Centre for Mental Health and London School of Economics, October 2014.

[3] Maternal Mental Health Alliance (MMHA) and the Royal College of Psychiatrists (2018). Too many new mothers still denied access to mental health support (as reported by Angela Newbury, Mental Health News) https://www.mediplacements.com/article-801846306-too_many_new_mothers_still.html

[4] The Edinburgh Postnatal Depression Scale (EPDS): https://www.knowppd.com/wp-content/uploads/2019/01/edinburgh-postnatal-epression-scale-en.pdf

[5] The Perceived Stress Scale (PSS): https://das.nh.gov/wellness/Docs/Percieved%20Stress%20Scale.pdf

3. Confidence in role as a mother. This is measured through a bespoke question "I am happy and confident with my role as a mother", scored on a five-point scale from 'strongly agree' to 'strongly disagree'.

4. Bonding between mother and baby, as measured by combining two bespoke questions; "I have found it difficult to bond with my baby" and "I find looking after my baby stressful most of the time". Each question is scored between 1-5 from 'strongly agree' to 'strongly disagree'. Scores above 6 (out of 10) were taken as a threshold to indicate difficulties bonding.

5. Client satisfaction with the service (scored on a scale of 1-5). Clients are asked to rate their satisfaction with the service after they have received therapy, a bespoke survey developed by MumsAid. This included questions about satisfaction with the service, according to expectations, their satisfaction with practicalities (such as time of meeting, venue and length of sessions). This brief questionnaire also gave clients the opportunity to provide open (text) feedback about the service, including what they found helpful.

Data from clients at baseline and post-therapy were compared using 'paired t-tests'[6]. These were repeated to compare differences between clients' scores at baseline and three-month follow-up (to see if changes were maintained over time). We did not analyse data at the six-month period because at present there are large amounts of missing data (16% of clients have completed this assessment at the time of writing, and paired data is limited).

Supplementary qualitative interview data will be collected from a sub-sample of MumsAid clients. (This is not presented in the current version of the report.) These interviews will be conducted by a person with lived experience of postnatal mental health difficulties. The interviews will include questions such as; how clients found out about MumsAid, why they sought help, the referral process they went through, experience of the service, feelings at the end of the counselling, advice they would give to a mother struggling with similar problems after having a baby, what worked well, any recommendations for improvement or future development.

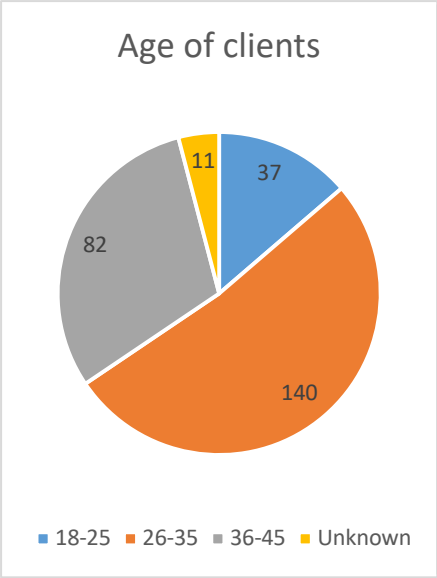
At present, our evaluation reports the analyses of the monitoring data only.

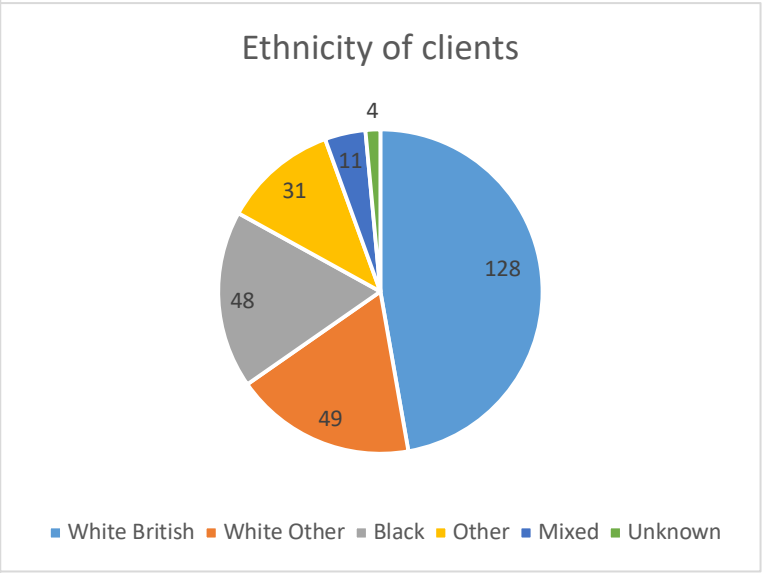
Findings

Client characteristics on entering the service

Demographic summaries for age and ethnicity of clients are shown in the charts below. Most clients were cohabiting with a partner on entering the service (67%, n=182):

[6] A paired t-test is a statistical procedure which can be used to compare one set of scores with another. It can help the analyst detect whether the differences between two sets of scores are likely to be 'significant' or not (for example, some differences in scores could be due to chance). Paired t-tests can be used to compare the average score for a set of clients entering the service (at 'baseline') with the average score for the same set of clients leaving the service (at 'follow up').





Regarding mental health upon entering the service, a significant minority were taking medication for mental health related issues (39%, n=106). A large majority (88%, 234 out of 267) scored 12 or over for the EPDS which indicates risk of clinical depression, the mean EPDS score was 17 (ranging from 5 to 28). Furthermore, 56 (21%) said they thought about harming themselves 'sometimes' or 'often'. Scores on the PSS showed that 74 clients (out of 247 = 30%) presented with 'high' levels of perceived stress (i.e., a score above 26), a further 165 (67%) presented with 'moderate' perceived stress (i.e., a score between 14 and 26).

Impact of MumsAid

Postnatal depression

We used paired t-tests to explore differences between baseline data with post-therapy data (and three-month follow-up data). 155 clients completed the EPDS at baseline and post-therapy, **94% of these, (146) showed improved scores at follow-up**. The average score for these clients at baseline was 17.2 and the average score post-therapy was 9.5. This reduction was significant ($p<.01$). 146 out of the 155 clients with EPDS pre-post showed improvements in scores at follow up. 38 clients completed EPDS scores at baseline and follow-up (after therapy finished), the average score for these clients at baseline was 16.4 and the average score at three-month follow-up was 9.3. Again, this reduction was statistically significant ($p<.01$).

We analysed a sub-sample of clients who scored 12 or higher on the EPDS (indicating the possibility of clinical depression). This consisted of the 142 clients who completed EPDS at pre- and post- therapy who met these criteria. **The average score at baseline for these clients was 18.3, the average score post-therapy was 9.9. This reduction was significant using a T-Test** ($p<.01$). For indication, 93 (65%) of these clients moved from a clinical score to a 'sub-clinical' score (i.e., <12) after receiving therapy, indicating that their symptoms were no longer as serious as they were beforehand.

Perceived stress, confidence and bonding

We used similar paired t-tests to compare differences for the 130 clients who completed PSS at both baseline and post-therapy. The average score at baseline was 24.4, the average score post-therapy was 18.3. **This reduction was significant ($p<.01$).** For the 35 clients who completed the stress survey at baseline and three-month follow-up, the average scores were 23.3 at baseline and 18.1 at follow-up. Again, this was statistically significant ($p<.01$).

For the 146 clients who completed the questions relating to 'confidence in role as mother' pre and post-therapy, the average score at baseline was 2.4 (out of 5; high scores indicate lower confidence), the average score post-therapy was 1.7. **This difference was statistically significant (p<.01).** For the 39 clients who completed this question at baseline and three-month follow-up, the average scores were 2.5 at baseline and 1.7 at follow-up. Again, this was statistically significant (p<.01).

For the 146 clients who completed the bonding questions at baseline and post therapy, the average score at baseline was 4.8 (out of 10; high scores indicate greater difficulty), the average score post-therapy was 3.6. This difference was statistically significant (p<.01). For the 39 clients who completed this question at baseline and three-month follow-up the average scores were 2.5 at baseline and 1.7 at follow-up. Again, this was statistically significant (p<.01).

We analysed a subsample of 53 clients whose scores at baseline indicated difficulties bonding with the baby (i.e., a score of more than 6). The average score at baseline for these clients was 7.2, the average score post-therapy was 4.4. This difference was statistically significant (p<.01). For the 16 clients in the subsample who completed this question at baseline and three-month follow-up, the average scores were 7.3 at baseline and 4.5 at follow-up. Again, this was statistically significant (p<.01; though the small sample size may limit this finding).

Satisfaction with service

Client satisfaction scores with the service 'Overall' were high. Of those that completed the satisfaction survey (n=144), the average score for overall satisfaction was 4.8 out of 5. Clients also described high satisfaction with the meetings venue (4.4), meeting times (4.6), length of sessions (4.1), and also felt that the service met their expectations (4.6).

126 clients responded to the open question to say what they found most and least helpful about the service. All the comments were positive about the service. Common themes from the comments including having a space to chat, seek advice, discuss problems and get a different perspective of the problem. The only regularly cited 'improvement' suggested was that clients wished there could have been more sessions. Examples of client feedback are shown in the box below:

"MumsAid is a brilliant organisation which needs more advertisement and should be a national organisation to help people like me."

"I feel I have been given a fresh prospective on my life."

"Having an outlet 'Confidant', someone to talk to on a weekly basis. I felt a huge weight off my shoulders and would look forward to my weekly sessions with [the counsellor]."

"Talking to [the counsellor] was cathartic and an incredible opportunity to talk openly/cry often and see I was 'normal' for feeling this way. I feel so blessed to have been able to attend these sessions. It was a real lifeline and I wish it would be offered to more mums as the demand is great. I am not yet fully healed, but getting there and a different person to when I started."

"The counsellor was very understanding and I felt understood. I could not have managed so well if I did not have this service. This service is extremely important and very much needed"

"Very helpful to talk about what I was feeling with someone outside my family and friends"

"I found everything really helpful as counsellor doesn't judge you. Overall, FANTASTIC! Give me some more sessions please"

"There is not anything I can think that has not been helpful. I feel that this time the sessions has helped me think through situations and think of a way forward."

"I found ALL the sessions invaluable."

Discussion

Persistent perinatal mental health problems can have long term negative impact on mother and baby alike[7], affecting quality of life, relationships, ability to function and potentially affecting the baby's cognitive development[8]. Evidence from systematic reviews and meta-analyses (i.e., collecting the results of all available clinical trials and analysing them together) have suggested that intensive, professionally support in the postnatal period is most likely to be effective[9]. Furthermore, mothers are likely to prefer non-judgemental 'talking therapies' to medication but may not recognise problems or seek support[10].

The findings of this report, in conjunction with these systematic reviews, indicate that a service like MumsAid is ideally placed to support mums who are experiencing serious postnatal difficulties. MumsAid clients significantly improved in all outcomes after receiving the service (wellbeing, confidence, bonding, perceived stress), these improvements were drastic and appeared to be

[7] Netsi, E., Pearson, RM., Murray, L., Cooper, P., Craske, MG & Stein, A. (2018) Association of Persistent and Severe Postnatal Depression With Child Outcomes. JAMA Psychiatry. 75(3):247-253.
[8] Lee, DTS. & Chung, TKH. (2007). Postnatal depression: an update. Best Practice & Research Clinical Obstetrics & Gynaecology. 21(2): 183-191.
[9] Dennis, CL. (2005). Psychosocial and psychological interventions for prevention of postnatal depression: systematic review. BMJ; 331:15.
[10] Dennis, CL & Chung-Lee, L. (2006). Postpartum Depression Help-Seeking Barriers and Maternal Treatment Preferences: A Qualitative Systematic Review. Birth 33(4).

maintained after the therapy was complete. Clients provided almost universally positive feedback about their experiences, including how important the service had been for them. MumsAid is not only providing essential support for the local area but is potentially providing a service which could be expanded into other areas. The Government recognises the success of the service, highlighting MumsAid as a case study for mothers experiencing mental health difficulties[11].

Estimation of cost effectiveness

Estimating the cost effectiveness for MumsAid as compared to standard IAPT (Improving Access to Psychological Therapy) services is challenging because the services use different outcome measures. The following estimates are cited for reference. The estimated cost of IAPT varies, a relatively recent cost effectiveness study (from 2013)[12] estimated the cost between £99 and £177 per session (depending on intensity). The average cost of IAPT per client was estimated at £877. These comparisons should also account for service effectiveness and engagement; the average cost per 'recovered' client for IAPT is estimated as being between £1,043 and £2,895.

The cost of providing MumsAid (which is mostly staffed by volunteers) has been estimated at £60 per session (£720 for a course of 12 sessions). As described above, the monitoring data suggests that 65% of clients moved from a clinical to a subclinical score, so the cost per 'recovered' client in MumsAid could be £1,108. This is comparable with the lowest costs of the IAPT estimate. Additionally, there are concerns with providing IAPT in perinatal mental healthcare; lack of relevant training for IAPT workers, lack of treatment methods specific to perinatal contexts, delays in access to treatment[13].

Strengths & limitations of the evaluation

The combination of monitoring data and client satisfaction data shows that improvements in the service are likely to be due to MumsAid, although we acknowledge that there are other factors in people's lives which influence postnatal mental health. The monitoring data is good quality, with enough data from clients to make comparisons before and after receiving therapy. The large differences in before/after scores means we can be confident that these differences reflect real changes in clients' lives. Semi-structured interviews will be conducted to supplement this and provide more information about how the service is helpful to clients.

The dataset has some minor limitations. The scoring of the available 'bonding' data conflates two questions about bonding and stress. We would recommend that these questions be separated to give a better measure of bonding in the future. The question relating to 'happiness and confidence' could be decoupled to into two questions to avoid ambiguity: "I feel happy and confident with my role as a mother" to "I feel confident with my role as a mother".

Key points

1. MumsAid provides a valuable and valued service for mothers experiencing perinatal mental health difficulties. The service is a leading example of good practice, as recognised by Government.

[11] HM Government. (2016). Case study. Perinatal counselling: early intervention for new and expectant mothers. https://www.gov.uk/government/case-studies

[12] Radhakrishnan, M., Hammond, G., Jones, PB., Watson, A., McMillan-Shields, F., Lafortune, L. (2013). Cost of Improving Access to Psychological Therapies (IAPT) programme: An analysis of cost of session, treatment and recovery in selected Primary Care Trusts in the East of England region. Behaviour Research and Therapy: 51(1): 37-45.

[13] Bauer, A., Parsonage, M., Knapp, M., Iemmi, V., & Adelaja, B. (2014). The costs of perinatal mental health problems. Centre for Mental Health and London School of Economics, October 2014.

2. MumsAid works with many complex cases in the London Borough of Greenwich, including clients who are experiencing significant mental health difficulties which would otherwise have potentially harmful effects on both mother and baby.
3. Almost all clients show improvements in postnatal depression scores after attending the service.
4. Almost two thirds of clients improve enough that they no longer meet the threshold for post-natal depression.
5. Preliminary cost effectiveness comparisons with IAPT services indicate that MumsAid' services proved a cost-effective way of helping mothers who are experiencing mental health problems.