

# A pilot evaluation of Mellow Bumps: an attachment-based antenatal intervention

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## Introduction

Antenatal exposure to high levels of stress has a long term impact on postnatal maternal and infant wellbeing, particularly in terms of social and emotional wellbeing<sup>1,2</sup>. Conversely, sensitive maternal attunement to the infant's emotional needs confers long-term benefits in the form of secure attachment and resilience to life stressors

Mellow Bumps is a six week group-based antenatal programme designed to support families with additional health and social care needs:

- Subject to Vulnerable Women in Pregnancy protocols
- Previous negative experiences with health and/or social services
- Previous and current mental health issues
- Addiction issues
- Previous children looked after and accommodated
- Social isolation
- Low self esteem
- Domestic violence
- Homelessness
- Lack of trust in agencies

The programme is intended to decrease stress levels of mums-to-be in pregnancy, help them understand babies' neonatal capacity for social interaction and the importance of early interaction in enhancing brain development and attachment. It is delivered non-didactically to enhance participant engagement and rapport.

Each week there is an activity focussed on the mum-to-be and another on a baby topic. The programme is designed to be offered between twenty to thirty weeks gestation, to capture the period when the pregnancy is most secure and the mum-to-be may have experienced foetal movement but before her attention is taken up with the delivery.

## Aims and Objectives

We aimed to evaluate the effects of the intervention on maternal wellbeing and infant outcomes via evaluation of the initial pilot groups. We also wished to explore the acceptability of the group to mums-to-be.

## Methodology

### Design

Data were taken from four pilots conducted in Glasgow and London (Hackney) during 2010. Groups were delivered by a range of staff from different health and social care disciplines. Data pertain to participants who attended more than half of the programme sessions.

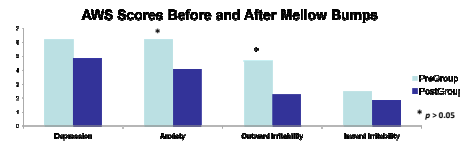
### Measures

Pre- and post-treatment data were collected for the following factors using the self report Adult Wellbeing Scale :

- Depression
- Anxiety
- Outward-directed irritability
- Inward-directed irritability

As a proxy for indicators of a healthy pregnancy we followed up referrers to ascertain final gestational age and birth weight of the babies. We also tracked postnatal engagement with health/social care services and early years initiatives e.g. Bounce and Rhyme, Play and Share, Mellow Babies, Baby Massage.

## Results



Preliminary results (n=12) comparing scores before and after participation in Mellow Bumps indicate significant differences in self-reported anxiety ( $p=.015$ ; Effect Size  $d = 0.74$ ) and outward-directed irritability ( $p=.014$ ;  $d = 1.01$ ). These data suggest medium to large effect sizes for change on clinical variables.

No significant differences were reported for self-reported depression ( $p=.091$ ;  $d = 0.62$ ) and inward-directed irritability ( $p=.054$ ;  $d = 0.35$ ). However, a medium effect size was recorded for depression.

The mean gestational age of babies was 38.8 weeks (s.d.= 1.79 weeks); the average birth weight (uncorrected for gender) was 2.999kg (s.d. = .36). At follow-up, referrers reported that 100% of mum's continued to engage with health and social care services.

All participants voiced the importance of sharing experiences with others and this seemed to reduce the stigmatisation around mental health issues and asking for help. One client sent a text after the end of the group saying: "Just wanted 2 let u know the group has made a positive impact on me an havin' u an Rach there 2 support me has gone in my mind a long way".



## Conclusions

Attendance at a Mellow Bumps programme is accompanied by a lowering of maternal anxiety and outward-directed irritability, with weaker effects recorded for depression and inward-directed irritability.

Data is restricted by the small sample size.

Qualitative data on the acceptability of the programme to mums-to-be is required, but early follow-up indicates that participants are engaging positively with post-natal services.

Mellow Bumps shows promise as an intervention for mums-to-be with additional health and social care needs.

Rigorous evaluation via a randomised controlled trial is warranted.

## References

Talge NM, Neal C, Glover V. Early Stress, Translational Research and Prevention Science Network: Fetal and Neonatal Experience on Child and Adolescent Mental Health. Antenatal maternal stress and long-term effects on child neurodevelopment: how and why?. J Child Psychol Psychiatry, 2007, 48: 245-261. doi: 10.1111/j.1469-7610.2006.01714.x

O'Connor TG, Heron J, Golding J, Beveridge J, Glover V. Maternal antenatal anxiety and children's behavioural/emotional problems at 4 years. Report from the Avon Longitudinal Study of Parents and Children. Br J Psychiatry, 2002, 180, 478 - 9.