

# A Scotland Wide Trial of Mellow Bumps with Teenage-Mums-to-be

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## Introduction

Mellow Bumps is an attachment based antenatal group programme intended to decrease stress levels of mums-to-be in pregnancy and improve mother-infant attunement by building awareness with participants that babies are prepared for social interaction from birth, and that this interaction can directly impact upon their child's brain development. Significant correlations have been found between mothers who are stressed in pregnancy and their children developing anxiety themselves with poorer social and cognitive developmental outcomes (Talge et al, 2007; O'Connor et al, 2002; O'Connor et al, 2003). Maternal attunement can help the baby to develop secure attachments, become resilient to life stressors and gain strong cognitive skills later in life (National Scientific Council on the Developing Child, 2005; Caspi et al, 2006).



## Inequalities in Teenage Mothers

It has been identified that there are inequalities in outcomes for teenage mothers and their children. In 2008, 149 children were born to mothers under 16 in Glasgow, and 108 in Lothian. These babies, who are born to mothers who are essentially still children themselves, are a particularly vulnerable group. It is known that teenage mothers are less likely to engage in support services and the babies of teenage mothers are one and a half times as likely to be of low birth weight, indicating poor development before birth and putting them at increased risk of poor outcomes later in life (Lewis et al, 2009). The babies are at higher risk of premature delivery (2.5 times as likely) and of low birth weight (1.5 times as likely), putting them at risk of adverse physical, developmental and emotional outcomes. Some of the adversity to which the babies are subjected is thought to be due to stress in pregnancy and poor antenatal care.



## Teenage Mellow Bumps

Despite such high levels of need being displayed by teenage mums, it has been shown that the most vulnerable parents do not use the existing parentcraft classes run by midwives in maternity settings (Mabelis & Marryat, 2011). Our project will specifically target young, vulnerable mums-to-be, using an evidence-based programme aimed towards reducing antenatal anxiety and increasing mother-infant bonding which have been associated with improved outcomes for children. Mellow Bumps is a unique programme which offers a psychosocial intervention to vulnerable mums-to-be. Delivering this programme through existing services will enable the continued education and social support for the mothers themselves as well as enhancing the life course chance for their babies. Intervening in pregnancy gives the baby the best start in life by reducing maternal stress, improving prenatal outcomes and enhancing post natal attachment, in an otherwise hard-to-reach group.



## Method

Eight independent, voluntary sector bodies are in the process of delivering groups. Organisations running groups include Barnardo's, Stepping Stones for Families North Edinburgh, Fife Council and Glasgow City Council. The evaluation will assess changes in maternal wellbeing over the course programme using the Adult Wellbeing Scale (Snaith et al, 1978). The gestational age and weight of the baby will also be obtained. Referrers will be contacted to see if participants have engaged with any further support services such as NHS appointments and external services such as baby massage and mother & baby groups.



## Pilot Results

A pilot study (n=19) of Mellow Bumps indicated that the programme had a positive impact on maternal emotional wellbeing with significant improvements in all four subscales of the Adult Wellbeing Scale (Waugh et al 2012). There were significant differences in the depression ( $p < .05$ ,  $d = .65$ ), anxiety ( $p < .005$ ,  $d = .92$ ), outwardly-directed irritability ( $p < .005$ ,  $d = .96$ ) and inwardly-directed irritability ( $p < .05$ ,  $d = .55$ ) subscales of the Adult Wellbeing Scale. The study also found that gestational age averaged at 38.8 weeks ( $SD = 1.79$  weeks) and birth weight, uncorrected for gender, averaged at 6.61 pounds ( $SD = 0.79$  pounds). The pilot also found that all of the mothers followed up had engaged with further postnatal services.



## Discussion and Conclusion

It is hoped that the results of this further study, aimed specifically at teenagers, will replicate previous findings which suggest that an attachment based antenatal intervention such as Mellow Bumps can have a positive impact on a mum-to-be's emotional wellbeing. Specifically, there is the potential to improve levels of anxiety, depression, outwardly-directed irritability and inwardly-directed irritability. In terms of physical outcomes, the birth data showed that the Mellow Bumps participants had all reached at least close to full term and none of the babies were classed as having a low birth weight, both positive indicators of a successful pregnancy. It is also hoped that the evaluations will demonstrate that the Mellow Bumps programme is a friendly and engaging mechanism which encourages teenage mothers to attend support services where they previously did not. In turn, it is hoped that the intervention will improve the maternal wellbeing of teenage mums-to-be and therefore improve the chances of developmental outcomes of their children.

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