Antenatal Care

19 June 2013
Antenatal parenting support for vulnerable women: an exploratory randomised controlled trial of Mellow Bumps

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Rationale

Foetus exposed to high levels of stress hormones in utero

Infant more sensitive to stress and difficult to soothe

Stress hormones affect foetal brain development resulting in negative effects on baby’s ability to cope with stressful stimuli

Can affect the quality of mother-infant bonding; especially if mother remains vulnerable in post-natal period.

Increases risk of child maltreatment

Can interventions in pregnancy improve outcomes?

Interventions in first 3 years of life improve long-term child outcomes

Poorer long-term child outcomes

Evidence of socio-emotional, educational and health inequalities for vulnerable children emerging at age 3

Woman vulnerable in pregnancy due to mental ill-health, substance abuse, domestic violence or having complex social care needs
The aim of the project was to compare the impact of participation in a Mellow Bumps intervention with that of a control intervention as well as care-as-usual on the mental health of pregnant women with substantial additional health and social care needs.
Interventions

Mellow Bumps

- 6 weekly 2 hour sessions
- Baby topic
- Activity for mum-to-be

Strategies to reduce stress

Awareness of baby

> social connectivity
> knowledge of attachment and infant development
< stress


Chill Out in Pregnancy

- 6 weekly 2 hour sessions
- Activity for mum-to-be

Strategies to reduce stress

> social connectivity
< stress
Inclusion criteria

- Mental health problem
- Substance misuse in last 12 months
- Involved in criminal justice system (self or partner)
- Complex social care needs
- Domestic abuse
- Complex homeless
- Child protection concerns
- Young person leaving care
## Outcome measures

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Measures</th>
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</thead>
<tbody>
<tr>
<td><strong>Pre-Intervention (18-28 weeks gestation)</strong></td>
<td>Adult Wellbeing Scale, Edinburgh Postnatal Depression Scale, Saliva samples for cortisol assay</td>
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<tr>
<td><strong>Post-Intervention (26-36 weeks gestation)</strong></td>
<td>Adult Wellbeing Scale, Edinburgh Postnatal Depression Scale, Saliva samples for cortisol assay</td>
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<tr>
<td><strong>5 days postnatal</strong></td>
<td>Saliva samples from baby pre- and post-Guthrie test</td>
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<tr>
<td><strong>8-12 weeks post-natal</strong></td>
<td>Adult Wellbeing Scale, Edinburgh Postnatal Depression Scale, Saliva samples for cortisol assays, Semi-structured interview, Mother-baby video</td>
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</table>
Recruitment

- Referral: 50
  - Declined: 11
    - Failed contact: 4
  - Recruited: 35
    - Withdrew: 2
      - Failed contact: 2
    - Pre-intervention data: 31
      - Withdrew: 2
        - Failed contact: 6
    - Post-intervention data: 23
Primary referral criteria

![Bar chart showing primary referral criteria]

- Mental health issue: 17
- Child protection concerns: 8
- Criminal justice (self or partner): 3
- Substance misuse: 2
- Care leaver: 2
- Domestic abuse: 1
- Young person complex: 2

Primary SNiP criteria
Participants

- **Age:** 17 – 42 years (mean 27.14, SD 7.49)
- **Deprivation:** 66% (n=23) SIMD 1
  
  26% (n=9) SIMD 2
  
  8% (n=3) SIMD 4
- **Parity:** 29% (n=10) first time parent
  
  51% (n=18) had one-two children
  
  20% (n=7) had three or more children
Preliminary results: Pre- and post-intervention

Adult Wellbeing Scale - Depression

Adult Wellbeing Scale - Anxiety
Preliminary results: Pre- and post- intervention

Adult Wellbeing Scale – Outward-directed irritability

Group allocation

Mellow Bumps  CHiP  Care-as-usual

Adult Wellbeing Scale – Inward-directed irritability

Group allocation

Mellow Bumps  CHiP  Care-as-usual
Preliminary results: Pre- and post-intervention

Edinburgh Postnatal Depression Scale

Group allocation

- Mellow Bumps
- CHIP
- Care-as-usual
Challenges

- Recruitment
- Retention
- Cortisol assays
- Communication
Next steps

- Complete data collection
- Data analysis to evaluate impact of interventions
- *Trial of Health Relationships Initiatives for the Very Early-years (THRIVE)*
### The interventions

#### Targeted intervention aimed at families whose baby is at risk of maltreatment

Based on social learning theory, the programme aims to:
- prepare couples for the changes that having a child brings to family life
- explore coping strategies
- teach parenting skills
- explore common infant problems and solutions

#### Targeted intervention aimed at pregnant women with additional health and social care needs.

Underpinned by attachment theory, there is a focus on:
- Improving maternal wellbeing by reducing stress and anxiety
- Increasing expectant mother’s understandings of neonates’ capacity for social interaction
- Emphasising the importance of early interaction to enhance brain development and attachment

#### Routine antenatal care provided by NHS

- Inter-agency assessment of special needs in pregnancy
- Services provided as part of woman’s care plan
- Joint agency pre-birth case conference at 28 weeks
Study design

Baseline questionnaire (n=500)

- Enhanced Triple-P for baby (n=208)
  - 4 x 2 hour antenatal group sessions
- Care-as-usual (n=84)
  - Up to 8 hours one-to-one postnatal support
- Mellow Bumps (n=208)
  - 7 x 2 hour antenatal group sessions

6 month follow up questionnaire and mother-infant video-recording

18 month follow up questionnaire and mother-infant video-recording

30 month follow up using routinely collected NHS and social care data
Progress to date

**SUBVENTION FUNDING**
- GGCHB and AAHB agreed funding for delivery of interventions
- CSO agreed funding for delivery of interventions

**RECRUITMENT OF PROJECT STAFF**
- 2 FTE and 2PTE employed by MRC to work on THRIVE
- 1 FTE post being advertised by GCU to work on process evaluation
- RA support from Scottish Mental Health Research Network

**RESEARCH AND EVALUATION**
- Study materials developed
- Process evaluation design being finalised
- NHS ethics to be submitted June 13
- Website and social media strategy being developed

**STUDY MANAGEMENT**
- Potential steering group members identified
- Trial protocol drafted
- ISRCTN registration will be undertaken after NHS ethics granted
Next steps

**Ethical approval**
- **TIMING**
  - June - August 2013

**Recruitment and training of practitioners**
- **TIMING**
  - September - November 2013

**Recruiting and collecting baseline data**
- **TIMING**
  - September 2013 - June 2015
We would like to thank:

- The women who have agreed to take part
- Elaine Moore, Anne Clarke, Karen Bell, Mary Garven, Marion Dodd, Beth Donnelly, Alison Barr, Jean Reid, and the community midwives who have helped to recruit participants, NHS Ayrshire & Arran
- Anne Jamieson, Catriona McLean, Morag McPhail, Rose Sloan, Joanne McGarry, Karen Smith, Halina McIntyre, NHS Greater Glasgow & Clyde
- Rosemary Mackenzie, Harriet Waugh and the Mellow Parenting team who trained the group facilitators, developed the Chill-out in Pregnancy programme for this study and have provided on-going support
- Elsa Ekevall and Kim Jones, Institute of Health & Wellbeing, University of Glasgow
- Caoimhe Clarke, Cat. Nixon, Shona Shinwell, MRC/CSO SPHSU, University of Glasgow
- The Scottish Collaboration for Public Health Research and Policy who provided the majority of the funding
- Scottish Mental Health Research Network for providing RA support to transcribe qualitative interviews
THANK YOU

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Parent’s Early Education Partnership

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Please note that parental permission has been given to use photos (©Sutton Trust/PEEP) included in this presentation. They are for illustration only and the families were not involved in any of the projects described.
Aim:
To introduce PEEP and consider how this can be used to enhance and support antenatal provision.
History

• PEEP Learning Together (LT) is an evidence based early learning intervention, initially developed for the birth to three age range.

• It is a training and flexible delivery programme based on a set of principles, with a curriculum, materials and core activities.

• PEEP trained practitioners encourage parents and their children to learn together using everyday opportunities and resources.
Antenatal Application of PEEP

- Targeted Antenatal & Postnatal Programmes in Aberdeen City

- Reflective Parenting Programme pilot study in Oxford
Reflective Functioning/ Mentalisation

(Fonagy et al., 1995)

• The ability of a parent/carer to identify their own state of mind and resulting behaviours and how these may impact upon those of their child

• Deemed to be crucial in development of intergenerational attachment and resilience
PEEP Project One

PEEP Targeted Antenatal & Postnatal Programmes in Aberdeen City
Why Target Pregnant Drug Users?

• Parental drug use greatly increases the risks to children

• Health and attachment in the mother and child cannot be related to drug consumption alone

• Positive early experiences important
The PEEP Antenatal Programme

• The transition into motherhood can be a difficult time for all women but in the context of drug-using woman it is frequently seen as problematic.

• Pregnancy can be a motivator and a time when clients and professionals share the same goals i.e. a normal, healthy baby.

• The antenatal period offers a window of opportunity in which to introduce harm reduction interventions and assist the promotion of secure attachments between mother and child.
Programme Aims

- Raise issues relating to pregnancy, attitudes and prejudices.
- Discuss the impact to lifestyle, routine and building secure attachments.
- Discuss routines of the unborn and newborn baby, preparations for the baby and support networks.
- Raise awareness of how, even before birth, babies are already part of a social world.
- Raise awareness of how babies learn and the ways in which adults support their development.
Evaluation

- Increased knowledge of their unborn and newborn baby’s skills.
- The importance of routines
- The importance of a baby’s name and how names promote respect.
- An appreciation of the individuality of their unborn baby.
- Why babies cry and what helps.
- An awareness of the supports, informal and professional, available to them to assist safe parenting.
Listening and Responding to Parents

- Bridging the gap – universal vs. targeted
- Challenges to sustained engagement - establishing different models of delivery
- Significant gains - mother & practitioner’s views
PEEP Model

• Research supports targeted antenatal & postnatal programmes

• Peep antenatal programme is example of positive early intervention – Scottish Antenatal Parent Education Core Syllabus 2011

• May reduce statutory interventions

• Peep principles promote collaborative working and can be a model for other antenatal groups
PEEP Project Two

PEEP Reflective Parenting Programme pilot study

Marie Mackenzie

June 2013  PEEP ©
PEEP Reflective Parenting Programme
Pilot study

‘This is a crucial period of time in which maternal representations concerning the foetus and baby are beginning to take shape’

(Warwick Medical School)

• Recruitment at 26 week
• Home visit 28 weeks
• Antenatal sessions between 30 and 36 weeks
Mindful Parenting -
the PEEP approach

• ORIM

• Marked mirroring

• Modelling

• Working in partnership with parents
Case Study
Outcomes for families

- Enhanced parent infant interaction
- Better understanding and preparation for parenthood
- Opportunities to meet other parents and develop a support group
- Reduce isolation and depression
- Better understanding/access to local services
- Involvement of fathers
- Earlier (and hopefully) sustained engagement of parents
Thank You
Discussion Questions

• Consider your current practice, what do you do at present to engage vulnerable expectant parents to support better outcomes for baby and family?

• How will what you have heard today influence this?

• What could you do differently?

• Who/what can help to support this? (might be policy/people/programmes/structures etc.)