Multiple stakeholder views of pre-school child weight management practices: a mixed methods exploration

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Statistics

- 41 million children under the age of 5 are overweight worldwide
- 70% of obese children will become obese adults
- In Western Europe approx. 2.5% of children are underweight
- **Reception:** 1 in 5 children are overweight or obese
- **Year 6:** 1 in 3 children are overweight or obese
- **Reception:** less than 1% of children are underweight
- **Year 6:** 1.42% of children are underweight

Sarbib (2006) “Poor nutrition is implicated in more than half of all child deaths worldwide - a proportion unmatched by any infectious disease since the Black Death.” [www.worldmapper.org](http://www.worldmapper.org)
How does Blackburn compare?

<table>
<thead>
<tr>
<th>Reception age:</th>
<th>England</th>
<th>Blackburn with Darwen</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2013/2014</strong></td>
<td><strong>Underweight:</strong> 0.90% 9.30%</td>
<td><strong>Underweight:</strong> 1.90% 10.50%</td>
</tr>
<tr>
<td></td>
<td><strong>Obesity:</strong> 1.90% 10.50%</td>
<td><strong>Obesity:</strong> 2.10% 8.40%</td>
</tr>
<tr>
<td><strong>2014/2015</strong></td>
<td><strong>Underweight:</strong> 0.96% 9.10%</td>
<td><strong>Underweight:</strong> 2.10% 8.40%</td>
</tr>
<tr>
<td></td>
<td><strong>Obesity:</strong> 2.10% 8.40%</td>
<td><strong>Obesity:</strong> 2.10% 8.40%</td>
</tr>
</tbody>
</table>
Background

- Unhealthy child weight increases the risk of both physical and psychological problems in later life.

- The majority of child weight interventions target school age children.

- It is suggested that a child’s eating and physical activity patterns are established during the pre-school years (ages 2-5).

- There is currently a ‘gap’ in service provision for pre-school children.

- Blackburn with Darwen has high levels of over and underweight.


PhD overview

- Study 1: Exploration of current provision of services for children of unhealthy weight
- Study 2: Development of communication and weight related training for front line practitioners
- Study 3: Piloting and evaluation of training developed in study 2
This study employed a sequential qualitative - quantitative mixed methods design.

Data collection tools:
- Semi-structured interviews
- Process mapping
- Online questionnaire

### Methods (phase 1)

**Participants:**
- 15 participants
  - Public health and service managers (n=4)
  - GPs (n=4)
  - Health visitors (n=2)
  - Community nursery nurses (n=3)
  - Children’s centre staff (n=2)

**Design:**
- Semi-structured interviews and process mapping

**Analysis:**
- Inductive thematic analysis using Nvivo

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**Interview topics**

- **Current practices for managing pre-school weight**
- **Challenges faced in addressing pre-school weight**
- **Current practitioner training needs**
# Findings

## Current practices for managing pre-school child weight

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subtheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifying weight issues</td>
<td>- Observation ○</td>
</tr>
<tr>
<td></td>
<td>- Weighing and growth charts ○</td>
</tr>
<tr>
<td></td>
<td>- Would not identify ○</td>
</tr>
<tr>
<td>Opening and communicating weight related topics</td>
<td>- Raising topic ○</td>
</tr>
<tr>
<td></td>
<td>- Not raising topic ○</td>
</tr>
<tr>
<td></td>
<td>- Building rapport ○</td>
</tr>
<tr>
<td></td>
<td>- Using growth charts ○</td>
</tr>
<tr>
<td>Practitioner interventions</td>
<td>- Further assessment ○</td>
</tr>
<tr>
<td></td>
<td>- Support and advice ○</td>
</tr>
<tr>
<td></td>
<td>- Follow up ○</td>
</tr>
<tr>
<td>Signposting and referrals</td>
<td>- Health care professionals ○</td>
</tr>
<tr>
<td></td>
<td>- Local services ○</td>
</tr>
</tbody>
</table>

“you can see they are overweight” (GP)

“it’s about building those relationships with parents” (CCS)

“I might ask them to keep a food diary” (HV)
Findings

Challenges faced by practitioners to addressing weight in relation to the socio-ecological model

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subtheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>- Parental factors</td>
</tr>
<tr>
<td></td>
<td>- Demographic factors</td>
</tr>
<tr>
<td></td>
<td>- Weight specific challenges</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>- Inappropriate time</td>
</tr>
<tr>
<td></td>
<td>- Sensitive topic</td>
</tr>
<tr>
<td></td>
<td>- Risk to relationship</td>
</tr>
<tr>
<td></td>
<td>- Other priorities</td>
</tr>
<tr>
<td></td>
<td>- Easier to address underweight</td>
</tr>
<tr>
<td>Organisational</td>
<td>- Lack of referral pathways</td>
</tr>
<tr>
<td></td>
<td>- Lack of services</td>
</tr>
<tr>
<td></td>
<td>- Service cuts</td>
</tr>
<tr>
<td></td>
<td>- Job pressures</td>
</tr>
</tbody>
</table>

"for one-to-one interventions it was 9-5 so if you’ve got a parent that works it could be an issue (M)"

"we aren’t doing that at the moment because we don’t have the capacity (HV)"
# Methods (phase 2)

<table>
<thead>
<tr>
<th>Participants</th>
<th>30 participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>- GP’s</td>
<td>(n=10)</td>
</tr>
<tr>
<td>- Practice nurses</td>
<td>(n=3)</td>
</tr>
<tr>
<td>- Health visitors</td>
<td>(n=10)</td>
</tr>
<tr>
<td>- Community nursery nurses</td>
<td>(n=7)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Design</th>
<th>Online questionnaire</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Analysis</th>
<th>Open ended questions: inductive thematic Quantitative: SPSS</th>
</tr>
</thead>
</table>

**Questionnaire Topics**

- Identifying preschool weight
- Challenges to addressing preschool weight
- Services, pathways and training needs
Findings

- Identifying weight issues
- Actions taken
- Techniques employed
- Signposting and referrals
## Findings

### Challenges faced by practitioners to addressing weight

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Total $M$ (SD)</th>
<th>Community nursery nurse $M$ (SD)</th>
<th>GP $M$ (SD)</th>
<th>Health Visitor $M$ (SD)</th>
<th>Practice nurse $M$ (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family characteristics</td>
<td>4.01 (1.09)</td>
<td>4.38 (0.68)</td>
<td>3.13 (0.92)</td>
<td>4.47 (1.07)</td>
<td>4.56 (1.02)</td>
</tr>
<tr>
<td>Knowledge and resources</td>
<td>3.02 (1.39)</td>
<td>1.94 (0.63)</td>
<td>2.98 (1.32)</td>
<td>3.14 (1.21)</td>
<td>5.27 (0.95)</td>
</tr>
<tr>
<td>Cultural differences</td>
<td>2.92 (1.57)</td>
<td>1.86 (0.60)</td>
<td>2.70 (1.67)</td>
<td>3.30 (1.32)</td>
<td>4.89 (1.01)</td>
</tr>
<tr>
<td>Perceived roles</td>
<td>2.70 (1.34)</td>
<td>1.43 (0.37)</td>
<td>3.33 (1.39)</td>
<td>2.63 (1.15)</td>
<td>3.78 (1.26)</td>
</tr>
<tr>
<td>Fear of reactions</td>
<td>2.37 (1.18)</td>
<td>2.0 (1.12)</td>
<td>2.55 (1.17)</td>
<td>2.10 (1.13)</td>
<td>3.50 (1.32)</td>
</tr>
<tr>
<td>Self-perceived competency</td>
<td>2.30 (1.18)</td>
<td>1.36 (0.38)</td>
<td>2.6 (1.24)</td>
<td>2.30 (1.21)</td>
<td>3.50 (0.87)</td>
</tr>
<tr>
<td>Communication</td>
<td>2.18 (1.29)</td>
<td>1.43 (0.45)</td>
<td>2.60 (1.58)</td>
<td>1.95 (1.06)</td>
<td>3.33 (1.44)</td>
</tr>
</tbody>
</table>
Overcoming barriers to addressing weight

**Better links between HV and GP surgery's**
- *(n=2)*
  - 'good working relationship with health visitor attached to [GP] practice' (GP)

**Overcoming language barriers**
- *(n=3)*
  - 'if language is a problem I will make a further appointment to see a family with a link worker' (CNN)

**Information for families**
- *(n=3)*
  - 'resources to hand out to families .... [and information on] services which are accessible' (CNN)

**Financial incentives**
- *(n=1)*
  - 'GP's paid for their time in addressing obesity' (GP)

**Staff training**
- *(n=4)*
  - 'training (online/face to face)' (GP)

**Introduce Screening**
- *(n=1)*
  - 'there needs to be a screening programme in place' (GP)

**Improve current services**

**Increase consultation time**
- *(n=1)*
  - 'routine visits for 2-4 year olds' (HV)

**More regular contact**
- *(n=3)*

**Improve pathways and referrals**
- *(n=3)*
  - 'clearer referral pathways' (GP)
Practitioner training needs

Identified practitioner training needs included:

- Communication of sensitive weight related topics
- Pre-school specific training (i.e. diet and PA recommendations)
- Additional support with growth charts/BMI
- Further information around pathways and referral routes
- Training updates and refreshers
Discussion

- Sample size
  - Some profession’s are well represented

- Challenges identified in both phases are consistent with much previous research

- Services and pathways
  - Knowledge of these is very limited
What next?

Study 1: Exploration of current provision of services for children of unhealthy weight

Study 2: Development of communication and weight related training for front line practitioners

Study 3: Piloting and evaluation of training developed in study 2
Thank you

Any Questions?

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