Can cooking programmes help tackle unhealthy eating? Evaluation of the “Eat Better Feel Better” community-based cooking intervention in Greater Glasgow and Clyde

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Unhealthy diets, socioeconomic inequalities in Scotland

Diet is poor overall, but inequalities exist. People in areas of deprivation:

↑ consumption of **energy dense foods** and **sugar**
↓ consumption of **fruit** and **vegetables, oil rich fish** and **fibre**
↑ **rates of overweight and obesity**

**Why?**

Intake of ‘**Discretionary’ foods/drinks** represent an unhealthy proportion of diet (FSS 2015)
- 20% of total caloric intake and fat
- 50% total sugar intake
Eating behaviours and lifestyle choices

• **40%** of adults in Scotland do not cook on a daily basis (FSA 2014)

• **75%** eat out /buy food to take away at least once/week (FSA 2014)

• Around **50%** of people think that it is quite or very difficult to eat healthily outside of the home (FSA 2015).
Barriers to healthy eating and cooking:

- Availability
- Affordability
- Time
- Skills
- Knowledge
- Culture

- Poorer cooking skills
- Less frequent home cooking
- Reliance on pre-prepared foods
- All associated with poorer dietary quality and overweight and obesity in observational studies
What can cooking programmes do to help?

Cooking programmes can contribute to improve other outcomes:

- **Eating behaviour**
- **Skills**
- **Confidence**
- **Knowledge**

(Flego 2014; Garcia et al 2013; Kennedy et al. 1998; Moynihan 2006; Lawrence et al 2006; Wrieden et al. 2010)

**EPPI Systematic Review (Rees et al 2012)**
The evidence is inconclusive because of the lack of high quality studies.

**2015 realist review of practical cooking in Scotland (CFHS 2015)**
Reach target communities, are evidence-based and include behaviour change
- **Short term, self reported outcomes, insufficient scientific robust and consistent evaluation**
NHS GGC developed the “Eat Better Feel Better” community-based cooking skills programme to increase confidence in cooking and to reduce barriers to cooking and healthy eating.

http://www.nhsggc.org.uk/about-us/professional-support-sites/community-cooking-network/
But.. is the cooking programme working?

- Evaluation of short and mid-term effectiveness
- Outcomes:
  - Cooking confidence
  - Barriers of time, cost, waste and knowledge of healthy eating
Evaluation methodology

• A single-group repeated measures design.

• The programme was a 6-week, 2 hour per week cooking intervention delivered in community-based facilities in four health and social care partnership localities in NHS GGC.

• Pre questionnaire
Post questionnaire
3-4 month follow up telephone interviews
3-4 month follow up questionnaire
Participants

136 participants of which:
- 62 completed pre and post questionnaire
- 42 completed phone interview 3-4 month follow up
- 17 completed follow up questionnaire 3-4 month follow up.

At follow up:
- 89% came from areas of high social deprivation
- 65% female
- 82% >45 years old
## Confidence on cooking

**Median Confidence (scale 1=not confident to 7=very confident)**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Baseline</th>
<th>Post-Intervention</th>
<th>Follow-up</th>
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</thead>
<tbody>
<tr>
<td>Cooking using raw ingredients$</td>
<td>5</td>
<td>6</td>
<td>7</td>
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<tr>
<td>Following a simple recipe*</td>
<td>5</td>
<td>6</td>
<td>7</td>
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<tr>
<td>Planning meals before shopping$</td>
<td>4</td>
<td>6</td>
<td>5</td>
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<tr>
<td>Shopping on a budget$</td>
<td>4</td>
<td>5</td>
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<tr>
<td>Shopping for healthier food$</td>
<td>4</td>
<td>5</td>
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<tr>
<td>Cooking new foods$</td>
<td>2</td>
<td>5</td>
<td>4</td>
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<tr>
<td>Cooking Healthier foods$</td>
<td>4</td>
<td>6</td>
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<tr>
<td>Storing food safely$</td>
<td>4</td>
<td>6</td>
<td>7</td>
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<tr>
<td>Using leftovers for other meals$</td>
<td>3.5</td>
<td>5</td>
<td>5</td>
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<tr>
<td>Cooking whole raw chicken from scratch$</td>
<td>5</td>
<td>6</td>
<td>6</td>
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<tr>
<td>Reading food labels$</td>
<td>3</td>
<td>5</td>
<td>6</td>
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<tr>
<td>Food Hygiene$</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

$Significant increase from baseline to post-intervention. *Significant increase from baseline to follow-up
Barrier of cost

- **Food costs** per week were identical at all three time points
  - Median: £40.00
  - Range: £15 - £80, £20 - £70 and £15 - £90

- **Takeaway/fast food costs per week** decreased from a median of £8.00 to £2.00 from baseline to follow-up
  - Range: £0 - £60 baseline, £0 - £50 post and £0 - £20 follow-up
Barrier of time

- Significant positive difference between ‘preparing ready meals in the microwave’ from baseline to follow-up (p=0.034)
  - Baseline: 59% vs. Follow-up: 24% using ready meals

- Positive increase of 12% in ‘preparing meals from scratch’ from baseline to post-intervention and 29% from baseline to follow-up

- Significant improvement for ‘I plan what to cook before shopping’ from post-intervention to follow-up (p=0.022) and baseline to follow-up (p=0.008) [scale changed from sometimes to usually]

- ‘I cook in bulk’ significantly increased from ‘rare to sometimes’ from baseline to follow-up (p=0.038)
Barrier of waste

Median values for questions ‘I throw away leftover food’ changed significantly (p=0.02) between baseline (sometimes) to post-intervention (rarely) and this was retained at follow-up (p=0.307).
Eating Behaviour

- No significant changes observed for ‘eating breakfast’, ‘snacking between meals’, and ‘eating meals at regular times’ between the three time points.

- Significant increase in eating:
  - ‘Salad’ from ‘once a week’ to ‘2-4 times a week’ between post-intervention and follow-up (p=0.016) and baseline and follow-up (p=0.024)
  - ‘Oily fish’ from ‘less than once a week’ to ‘2-4 times a week’ between baseline and follow-up (p=0.039) and post-intervention and follow-up (p=0.053)
Knowledge
(Understanding food labels)
Conclusions

• The Eat Better Feel Better programme targeted participants living in socially deprived areas.
• The programme was effective in improving cookery skills confidence and knowledge, using time more effectively and efficiently and decreasing food waste.
• Costs suggest participants used money wiser by spending less in unhealthier food choices.
• Self reported eating behavior harder to change.
Thanks for your attention!