Game of Stones: Recruitment of obese men from across the socio-economic spectrum into a text-message based weight management study

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Game of Stones Team

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• Marjon van der Pol - Professor of Health Economics, University of Aberdeen
• Mark Grindle – Senior Lecturer in Digital Health, University of Highlands and Islands
• Martin Tod - Men's Health Forum
• Michelle McKinley – Senior Lecturer in Nutrition, Queens University Belfast
• Paula Carroll - Men's Health Forum in Ireland
Scottish obesity rates 2014

- **Adults**:
  - Overweight: 65%
  - Obese: 28%

- **Children**:
  - Overweight: 31%
  - Obese: 17%

Source: Scottish Health Survey 2014
Introduction

• Men more likely to be overweight than women, and obesity prevalence is equally high (Scottish Health Survey 2016)

• Obesity more prevalent in disadvantaged areas compared to more affluent areas (Scottish Health Survey 2016)

• Men from disadvantaged backgrounds participate less in weight management (Robertson et al 2014)
Aim

To assess the acceptability and feasibility of recruiting obese men from disadvantaged communities using GP practice and community strategies
Feasibility RCT

Community and GP Practice Recruitment → Randomisation → only +
Recruitment

105 obese men

50% GP practice (letter) 50% Community
GP recruitment

• The Scottish Primary Care Research Network invited practices within disadvantaged areas

• GP practice lists screened and eligible men (BMI≥30) sent an invitation letter

• Interested men returned freepost opt-in slips

• Researchers contacted opt-ins to arrange a baseline appointment
Community recruitment

• Researchers attended community venues with study leaflets and posters on display.

• Interested men gave contact information to researchers to arrange a baseline appointment.

• Word of mouth & leaflet distribution (e.g. libraries, barbers, bookies & shops).
Community recruitment

Local Gym  Flyers

Tesco

Community Centres

B&Q

Town Centre

Council Sites  Hospital Foyer
Results: Recruitment

- Target: recruit 105 men in 4m - completed in 3½m
- Total community recruits = 60
- Total GP recruits = 45
Community Recruitment

2 hours for every man randomised

- Health Centres
- On-street
- Hospital Foyer
- Supermarkets
- Sports Centre
- Council Venues
- Hardware Store
- Word of mouth

- Hours Spent at Venue
- Randomised participants
GP Recruitment

<table>
<thead>
<tr>
<th>GP Practice</th>
<th>Letters Sent</th>
<th>Opt ins</th>
<th>Opt in %</th>
<th>Randomised</th>
</tr>
</thead>
<tbody>
<tr>
<td>FV1</td>
<td>228</td>
<td>33</td>
<td>14.5</td>
<td>28</td>
</tr>
<tr>
<td>G1</td>
<td>57</td>
<td>4</td>
<td>7.0</td>
<td>3</td>
</tr>
<tr>
<td>G2</td>
<td>347</td>
<td>17</td>
<td>4.9</td>
<td>11</td>
</tr>
<tr>
<td>G3*</td>
<td>187</td>
<td>27</td>
<td>14.4</td>
<td>4</td>
</tr>
<tr>
<td>G4*</td>
<td>62</td>
<td>9</td>
<td>14.5</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>881</td>
<td>90</td>
<td>10.2</td>
<td>45</td>
</tr>
</tbody>
</table>

*Most participants that opted in from these two practices were not randomised for logistical reasons*
## Recruitment Conversion

<table>
<thead>
<tr>
<th></th>
<th>Community</th>
<th>GP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Info Gained</td>
<td>88</td>
<td>90</td>
</tr>
<tr>
<td>Opted in after the study was full</td>
<td>1</td>
<td>37</td>
</tr>
<tr>
<td>Unable to contact</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Decided not to take part</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>DNA or cancelled</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>Ineligible</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Randomised</td>
<td>60</td>
<td>45</td>
</tr>
<tr>
<td><strong>Conversion %</strong>*</td>
<td><strong>69</strong></td>
<td><strong>85</strong></td>
</tr>
</tbody>
</table>

* The % of men that we gained contact information from that resulted in randomisation (excluding those that opted in after the study was full)
Participant SIMD

Percentage of Participants

<table>
<thead>
<tr>
<th>SIMD (Scottish Quintile 2016)</th>
<th>Most deprived</th>
<th>Least deprived</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>
SIMD – Recruitment Method

Percentage of Participants

<table>
<thead>
<tr>
<th>SIMD (Scottish Quintile 2016)</th>
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<th>Least deprived</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community (n=60)</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>GP (n=45)</td>
<td>15</td>
<td>10</td>
</tr>
</tbody>
</table>
SIMD – GP Recruitment

Opt in rate

9.4%  9.1%  7.7%  14.5%  16.1%

Number of Invites & Opt ins

Most deprived  SIMD – 2016 Scottish Quintile  Least deprived

Invites  Opt ins
Conclusions

• Community and GP recruitment effective strategies that engaged men across socioeconomic spectrum

• For every 2 hours spent at community recruitment venues, one participant was randomised

• GP letter opt-ins more likely to become randomised participants compared to community recruits

• Men from more affluent areas are more likely to engage, so care should be taken to target disadvantaged areas for equitable research. It is possible to engage the men!
Acknowledgements

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The University of Dundee’s Tayside Clinical Trials Unit are providing trial management support.

The University of Dundee’s Health Informatics Centre are providing software systems and trial management support.
Any Questions?