Prevention Of Diabetes & Obesity in South Asians

PODOSA trial:
Finnish Europeans to Scottish South Asians

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on behalf of PODOSA Investigators Group
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PODOSA Participants
PODOSA Investigators & Collaborators
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Aim of the presentation

* What is PODOSA?
* Why we planned this study?
* Why the adaptations were necessary?
* WHAT & HOW WE ADAPTED
What is PODOSA?

Prevention of Diabetes & Obesity in South Asians

A randomised control trial with an aim to reduce the 3 year incidence of diabetes in Indian and Pakistani origin people at high risk of developing diabetes on an oral glucose tolerance test.

Aim changed to:

*achieve weight loss in UK South Asians with impaired glucose tolerance (IGT)/impaired fasting glucose (IFG), by increasing physical activity and modifying diet and thus preventing progression to type 2 diabetes.*
Why PODOSA?

* UK – ethnically diverse

* South Asian origin people- higher risk
Why adapt?

* Accessibility

* Combine Intervention styles with cultural beliefs & practices, preferred language and social norms
Where to start?

- Da Qing Study: 1986-92, n=577, 31% at 6 yrs
- Finnish (DPS)Trial: 1993-98, n=522, 58% at 4 yrs
- DPP (USA): 1996-99, n=3234, 58% at 2.8 yrs
- IDP: 531 Median 2.5 28.5% at 2.5 yrs (Lifestyle group)

PODOSA - Initiated work: 2004
First draft proposal: Jan 2005
Grant application approval Nov/Dec 2005
Staff appointments Sept 2006
Trial active: July 2007 - Dec 2012
Final decision: adapt Finnish Trial

...but it had its challenges!
Finnish trial

Specific dietary targets:
Total fat: ≤ 30% total kcals
Sat fat: ≤10% total energy
Fibre: ≥ 15g/1000 kcals
VLCD considered

Moderate intensity physical activity: 150 min/week
Circuit type training. Individualised sessions

Staffing / Resources
Physician, study nurse, nutritionist, exercise instructor/physiotherapist

Weight loss goals ≥ 5%
Enormity of work... Team working

- Recruiting study participants
- Dietitians recruitment training
- Design Intervention
- Consent forms
- Resource adaptations
- Diet & PA assessment
- One to one Family Or group?
- New resources
- Existing Materials?
- Clinic to home considerations
- Multi-lingual panel Translators
- Newsletters
- Safety issues

PODOSA Adaptations  Wallia,S  EUPHA Pre-conf Nov 19th 2014 SECC Glasgow
## Adaptations of Finnish trial ➔ PODOSA

<table>
<thead>
<tr>
<th>Variable</th>
<th>DPS</th>
<th>PODOSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; degree relatives of people living with type 2 diabetes</td>
<td>Open to all Pakistani and Indian origin. Adult family volunteer (s) + main cook co-operation</td>
</tr>
<tr>
<td>Setting</td>
<td>Clinic</td>
<td>Home /family setting.</td>
</tr>
<tr>
<td>Recruitment source and strategy</td>
<td>local adverts/identified in earlier surveys</td>
<td>Multi-pronged strategy</td>
</tr>
<tr>
<td>OGGT scr</td>
<td>Nurses</td>
<td>Dietitians</td>
</tr>
<tr>
<td>Age criteria</td>
<td>40-64</td>
<td>35 and over</td>
</tr>
<tr>
<td>BMI criteria</td>
<td>&gt;25kg/m²</td>
<td>Not used</td>
</tr>
<tr>
<td>Waist criteria</td>
<td>Not measured at screening</td>
<td>≥ 80cm for women&lt;br&gt;≥ 90cm for men</td>
</tr>
<tr>
<td>OGGT (WHO criteria)</td>
<td>IGT subjects only</td>
<td>(IFG) IGT or both</td>
</tr>
</tbody>
</table>

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PODOSA

(Criteria: waist, age, main cook, impaired glycaemia on OGTT)

Recruitment

Baseline visit

Control

4 contacts over 3 years
usual standard care

Intervention

15 contacts over 3 years
Individualised- behaviour change
Food diary, pedometer, CW booklets
Diet & PA goals

Intervention for all
Explain IFG/IGT
Weight, Height, Waist
Blood Pressure
Chester Step Test
Data Collection
Q: Food Habits & IPAQ
Diet & PA education

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Adaptations in PODOSA

Some in Urdu (Hindi) Punjabi/English. phonetical or script

Data collection material
IPAQ, PAR-Q, EHQ, Food diaries, Food habits

Lifestyle resources
Posters : Balance of Good Health, Physical activity
Counterweight booklets

Other resources:
BHF, SAHF DVD, WCRF, Diabetes UK FSA, Weight loss on a plate, Food swaps, Calorie counters
Ways to burn 100, 200, 300kcal, Fibre content in foods

Examples of the process of adaptation
• Mainly bilingual dietitians
• Recruitment strategies
• Mode of delivery & setting
• Food diary adaptation
Extended role of research dietitians

Venepuncture - OGTT

Anthropometrics

Waist

Chester step test

Motivational skills

Physical activity consultation

Data collection

Mainly Bilingual dietitians

Trust & Rapport

Same dietitian followed the participants for 3 years (started with 4 dietitians → 3 dietitians)
Adaptation process for recruitment of trial participants

Multi-pronged recruitment approach
NHS referrals from health care professionals
Written invitations via general practices
Diabetes registers

Community centres, places of worship
Trained community recruiters

Word of mouth - dietitians approaching participants for their friends and families (most successful and at no cost!)

Flyers
Posters
Websites
NHS local and south Asian papers
Talks in Punjabi by PODOSA team
Meetings with AIO, Indian & Pakistani consulate
Local Asian radio
Mela: Glasgow & Edinburgh
MP
Local organisations
Marketing agency
Adaptation process
clinic to home

* Home visits - family dynamics, social structures, snacking habits, meals and physical activity habits.
* Familiarisation - trusting, professional relationship
* Collaborative working
* Flexible appointments
Practical resources adaptation

Adapted from Counterweight: visual, portions
Tailored interventions to achieve lifestyle changes

Reinforcing Lifestyle messages

Interaction: one to one, family, group interventions, home visits, food shopping tours, cookery demonstrations, involving the main cook, acceptable recipes. Encouraging food diary and pedometer logs. Praising the individuals and families on their achievements.
PODOSA

Recruited 171

Control (86 +fv) | Intervention (85 +fv)

4 contacts over 3 years | 15 contacts over 3 years

3 year trial completed by ~ 98%

Weight: + 0.51kg | Weight: - 1.13kg

Overall weight change: adjusted mean difference of 1.64kg
Summary

- Adapted Finnish
- Change of focus from individual to the family
- Contact with the dietitian was the main intervention
- Intervention delivered in the home rather than the clinic
- Mainly bilingual dietitians
- Tailored motivational techniques
- Used existing or adapted resources: Counterweight, NDR-Balance of Good Health poster, pedometers, diet and physical activity diaries to meet the cultural needs of UK South Asians
- Practical group sessions – walking groups, bhangra dancing with ladies, shopping tours, label reading, cookery demo, food tasting.
PODOSA Intervention Manual
Prevention of Diabetes and Obesity in South Asians, Funded by National Prevention Research Initiative
PODOSA Research Team and Investigators’ Group, Universities of Edinburgh & Glasgow, October 2012

Intervention manual available on: http://www.podosa.org/

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