



ADAPTATION



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



Acknowledgements



PODOSA Participants

PODOSA Investigators & Collaborators

PODOSA trial steering committee

PODOSA dietitians, trial manager and admin staff

PODOSA Data Monitoring & Ethics Committee

Biochemistry lab staff at Western General Infirmary, Edinburgh and Glasgow Royal Infirmary

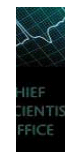
Multi-cultural day care centre users, staff & voluntary workers at places of worship

University students: Edinburgh

Clinical research facilities, Diabetes MCN and healthcare staff : Glasgow & Edinburgh



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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 2.5yrs (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: $\leq 30\%$ total kcals

Sat fat: $\leq 10\%$ total energy

Fibre: $\geq 15\text{g}/1000$ kcals

VLCD considered

Moderate intensity physical activity: 150 min/week

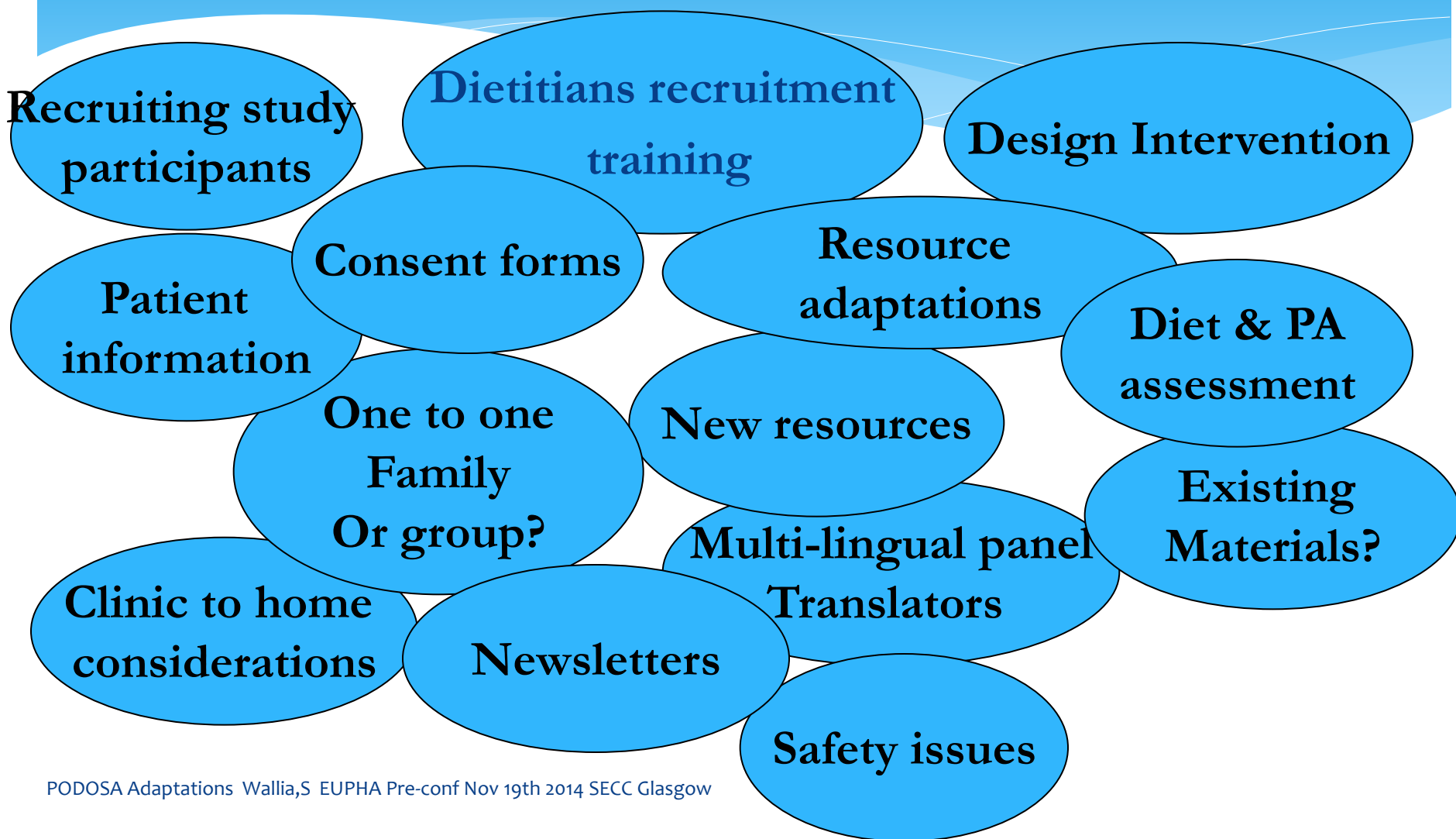
Circuit type training. Individualised sessions

Staffing / Resources

Physician, study nurse, nutritionist, exercise instructor/physiotherapist

Weight loss goals $\geq 5\%$

Enormity of work... Team working



Adaptations of Finnish trial → PODOSA

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

PODOSA

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

Recruitment



Baseline visit



Control

Intervention



4 contacts over 3 years

usual standard care

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

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

Data collection translations

↓
Cross –linguistic/cultural

↓
Face validity

↓
Tested with volunteers

↓
Corrected

↓
Same response

English, Urdu, Hindi, Punjabi

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



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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



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



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

Publications

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- * Wallia, S. et al. (2014) Culturally adapting the prevention of diabetes and obesity in South Asians (PODOSA) trial. Health Promotion International . ISSN 0957-4824 (doi:"10.1093/heapro/dat015") (Early Online Publication)
- * Douglas, A. et al. (2013) Design and baseline characteristics of the PODOSA (prevention of diabetes and obesity in South Asians) trial: a cluster, randomised lifestyle intervention in Indian and Pakistani adults with impaired glycaemia at high risk of developing type 2 diabetes. BMJ Open,3 (2).e002226-e002226.ISSN 2044-6055 (doi:"10.1136/bmjopen-2012-002226")
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- * Gill, J.M.R. et al. (2011) Sitting time and waist circumference are associated with glycemia in U.K. South Asians: data from 1,228 adults screened for the PODOSA trial. Diabetes Care, 34 (5). pp. 1214-1218. ISSN 01 49-5992 (doi:"10.2337/dc 10-2313")