

Community-based Prevention of Diabetes (ComPoD): A randomised, waiting list controlled trial of the Living Well, Taking Control programme

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Background

- Type 2 diabetes is a serious, expensive & growing public health challenge (~10% of NHS budget)
- NICE guidance recommends diabetes prevention in people at high risk (e.g. with “pre-diabetes”) via intensive lifestyle interventions for weight loss
- One-to-one US & Finnish diabetes prevention programmes reduced risk by ~60%
- BUT, few robustly evaluated ‘real-world’ diabetes prevention programmes in the UK

ComPoD trial www.isrctn.com/ISRCTN70221670

Aim:

To evaluate the clinical and cost-effectiveness of an existing community-based diabetes prevention programme (“Living Well, Taking Control”, LWTC) being delivered by voluntary sector providers

Design:

- 6m randomised, waiting list controlled trial across 2 of 4 delivery sites (Devon, Birmingham)
- 12m observational follow up of intervention group
- Wider before-after service & process evaluation

Participants

- Aged 18-74 years
- Considered on basis of test in last year at high risk for type 2 diabetes according to NICE criteria:
 - Fasting Plasma Glucose 6.1-6.9mmol/l, or
 - HBA1c 42-47 mmol/mol
 - excluding those in diabetes range at baseline
- Resident in eligible Devon or Birmingham postcodes
- BMI ≥ 25 kg/m² (≥ 23 for certain ethnic minority groups) and less than ≤ 45 kg/m²

Outcomes

- Changes at 6m, intervention maintenance at 12m in:
 - objectively-measured **weight** (primary outcome)
 - **physical activity** (via accelerometers)
 - **blood glucose** (HbA1c via point of care testing)
 - self-reported diet, health and well-being
- **Cost-effectiveness**, including modelling long-term costs and consequences (Sheffield SPHR model)
- Wider before-after data on **generalisability**, process measures e.g. population, provider, participant characteristics; prog. uptake, delivery

Living Well, Taking Control

- Big Lottery-funded with structure, content, and delivery **adherent with NICE guidance**
- Initial **4-6 2-hour weekly group sessions**
 - covering diabetes risk, diet, PA, well-being
 - led by trained lifestyle coaches in local venues
 - adapted to local participants' needs...



Westbank group, Devon

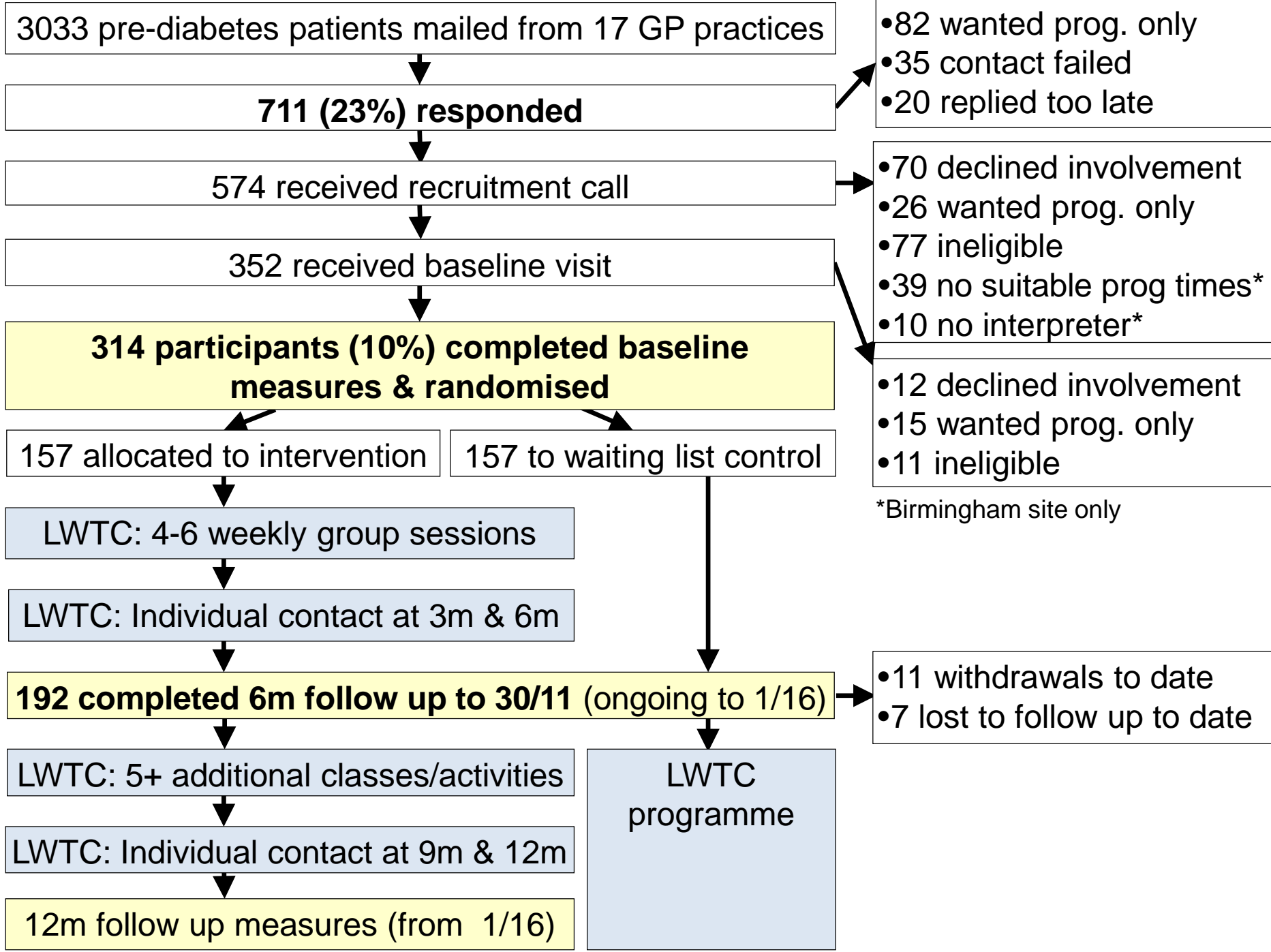


Health Exchange group, Birmingham

Living Well, Taking Control (cont)

- Followed by 3-monthly individual support contacts, attendance at 5+ additional chosen classes or activities up to 12 months...





Preliminary baseline characteristics

		TOTAL				
		Control	Intervention	Exeter	Birmingham	Combined
		n=157	n=157	n=170	n=144*	n=314
Male gender	No.	68	68	75	61	136
	%	43%	43%	44%	42%	43%
Age (yrs)	Mean	61.32	61.42	63.32	59.07	61.0
	SD	10.35	8.97	9.03	10.37	9.88
	Range	29 - 75	29 - 75	29 - 75	29 - 75	29 - 75
Weight (kg)	Mean	86.8	87.7	87.9	86.5	87.3
	SD	17.0	13.1	13.0	17.4	15.2
	Range	55.7 - 126.7	56.8 - 154.2	56.8 - 123.8	55.7 - 154.2	55.7 - 154.2
BMI (kg/m²)	Mean	31.7	32.0	31.6	32.1	31.8
	SD	5.1	4.0	4.0	5.1	4.6
	Range	24.3 - 44.8	24.2 - 44.6	25.0 - 43.9	24.2 - 44.8	24.2 - 44.8

*Nearly 50% estimated to be from ethnic minority

Initial pre-post evaluation data

- 722 participants with pre-diabetes entered LWTC across 2 sites up to July 2015
- 6m follow up data collected by providers on 191 overweight participants to July 2015
- Significant pre-post changes in diabetes risk factors:
 - 1.77kg weight loss ($p < 0.01$)
 - 1.85mmol reduction in HbA1c ($p < 0.01$)
 - dietary behaviours for fat & fibre intake ($p < 0.001$)
- Significant improvements in depressive symptoms ($p < 0.001$)
- Further data collection and analyses ongoing

Conclusion

- Innovative example of robust evaluation of an existing intervention involving collaboration between multiple academic & third-sector partners
- Initial observational data suggest potential positive effects of LWTC on diabetes risk
- Process data and trial results due early 2016 will provide timely, more definitive evidence on effectiveness and implementation to feed into proposed National Diabetes Prevention Programme

Acknowledgements

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School for Public Health Research


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Health Research*

Request for help!

Do you have expertise in the design or delivery of **group-based interventions** for diet, physical activity, weight loss (or potentially other behaviours)?

We are seeking **expert advisors** and examples of **intervention manuals** for NIHR/MRC EME funded study commencing Jan 2016:

“Mechanisms of Action in Group-based Interventions”

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