Evaluating the fidelity of implementation of a voluntary sector-led, community-based diabetes prevention and management programme

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INTRODUCTION
- Living Well Taking Control (LWTC) is a community-based type 2 diabetes (T2D) prevention and management programme.
- Objective: To promote sustainable healthy lifestyle changes.
- Target population: People with pre-diabetes & newly-diagnosed T2D.
- Core component of the intervention: Group-based structured education sessions delivered weekly, for 4 weeks, by trained facilitators.
- This intervention was designed to meet evidence-based recommendations from NICE.
- The clinical and cost effectiveness of the diabetes prevention component of LWTC is being evaluated in the ConPod trial.
- The Fidelity of Implementation (FoI) Study is part of a wider service evaluation of LWTC, and is critical to successful translation of evidence-based interventions into practice.
- The heart of fidelity is often considered to be intervention delivery, whose core components are adherence and competence.
- Adherence – extent to which facilitators conform to the intervention protocol.
- Competence – skillsfulness in the delivery of the intervention.

AIM: To assess the fidelity of implementation of the LWTC programme, with a focus on facilitator adherence and competence.

RESULTS

PARTICIPANT CHARACTERISTICS
- Using questionnaire data, t-tests were conducted to see if there were any significant differences between the participant characteristics of the FoI Study sample compared to the wider Westbank sample.
- There were no significant differences between the groups except for the following characteristics:
- Participants in the fidelity groups were significantly heavier (p<0.05) but had a significantly lower HbA1c (p<0.05) than the Overall Westbank participants.
- The overall Westbank participants had a significantly higher education level than participants in the fidelity groups (p<0.05).

ADHERENCE
- Examples of adherence items on the fidelity checklist:
- Assess importance & confidence in making healthy lifestyle changes.
- Goal-setting or review goals set.

IMPLEMENTATION OF OPTIONAL ITEMS
- The overall percentage of optional items implemented ranged from 45.45% to 64.64% across all groups.
- "Offering refreshments" and "Repeating clinical metrics" were always implemented.
- The optional walk or seated exercise in Session 3 was implemented for one group.
- The optional relaxation exercise in Session 4 was never implemented.
- Supporting to healthcare professionals, local services, or additional support were carried out as required.
- None of the three additional optional items for diabetic participants were implemented, i.e. expectations from healthcare professional, information about annual reviews, and the 15 Healthcare Essentials.

OVERALL IMPRESSION OF GROUP DYNAMICS
General observations of group dynamics from the audio recordings:
Facilitators:
- Professional; patient; handled questions well, with good explanations.
- Effectively encouraged group participation and engagement.
- Encouraged participants to share ideas and support each other in making changes.
- Supportive of participants who were negative, demotivated, or less confident in making healthy lifestyle changes.

Participants:
- Good overall contribution to the discussions; supportive of one another.
- Several groups were fairly quiet at the start, but became more talkative towards the end of Session 1.

DISCUSSION
- Results suggest that the group sessions were delivered to a typical sample of programme participants, which allows the intervention outcomes to be generalised, to a certain degree, to the wider Westbank sample.
- It may have been challenging for the facilitator to address all the diabetic participants’ questions within the allocated time of the session, while still adhering to the protocol.
- Neither facilitator had previous training in mental health and wellbeing support, which may have affected confidence in delivering Session 4.
- The moderate inter-rater agreement for the adherence criteria, may be due to the raters having varying interpretations of some of the criteria.
- All participants were required to provide consent at the start of Session 1. The 'confidentiality agreement' criterion was a measure of facilitators' competence in creating an open and safe environment – it may be assumed to have been implemented prior to the recorder being turned on.
- Lack of local facilities, facilitator expertise, or time, are possible reasons why optional activities/items were not implemented more often.
- It is recommended to review the programme protocol to give clearer guidance and enhance facilitator training in the area of mental health and wellbeing, in order to improve delivery of that intervention component.
- A more robust method of assessing facilitator competence may need to be implemented.

STUDY SETTING
- Four facilities in Devon: 3 in Exeter, 1 in Tiverton.
- Programme delivered by the voluntary-sector organisation, Westbank.

DATA COLLECTION
- Audio recording of sessions conducted from 20 January to 5 May 2015.
- 5 pre-diabetes and 2 diabetes groups (total of 49 participants).

DATA ANALYSIS
- Audio recordings were analysed using a fidelity checklist.
- The level of implementation for each item was rated: Low/not observed (1 point); Observed to a small degree (2 points); Observed to a medium degree (3 points); High implementation (4 points).
- The level of implementation for each component = Sum of compulsory items score / Number of compulsory items.
- Overall level of implementation score for each group = Average of the scores from the four sessions.
- The goal for an acceptable level of implementation was set at 80%.
- 10% recordings tested with Kappa statistics (k) for inter-rater agreement.

METHODS

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REFERENCES