A tpb based pram walking health and social care essay

During the postnatal period, exercise levels have been found to significantly decrease (1) and much research suggests that, during this period, the majority of women are inactive (1-5). This is despite guidelines advising that ‘ postnatal women should accumulate a minimum of 150 minutes of moderate to vigorous exercise per week’ (6) and evidence showing regular exercise can provide overall health benefits (6). Once new mothers have obtained medical clearance (7), there should be a gradual return to regular exercise including both aerobic and muscle toning activities (8). New parental responsibility is a common reason regular exercise is abandoned (9) and a lack of childcare has been identified as one of the most prevalent barriers for mothers engaging in regular exercise (1-5), despite the fact that maternal exercise participation has been shown to increase physical activity levels in children (10-12). Exercise also has many physical benefits in the postnatal period, including; an increase in aerobic fitness (13, 14), greater insulin sensitivity (15), weight loss (16, 17) and less pregnancy-associated weight gain (18-20), while psychological benefits include; decreased postnatal depression (21) and anxiety (22) and increased positive affect (19, 22-25). Women who engage in regular exercise have also been found to have more positive body attitudes (21) and this is beneficial due to the negative effect of severe weight concern on mental health (26). This intervention will therefore focus on increasing physical activity levels in postnatal women.

Literature Review

To encourage behaviour change, researchers advocate a theoretical basis for health interventions (27). The ‘ Theory of Planned Behaviour’ (TPB; 28) has

long been used to inform health based interventions and is a validated, widely used model (e. g. 1, 29). The model has many components, of which intention is considered the most important, and is theorised to be made up of three elements; attitudes, subjective norm and perceived behavioural control (30). Attitudes reflect global evaluations about a behaviour while ‘ subjective norm’ describes the influence of others. (30). ‘ Perceived behavioural control’ (PBC) describes ease of behavioural performance and is made up of two components; volitional control (personal control) and self-efficacy (confidence in ability) (30). Attitude, subjective norm and PBC, have been found through systematic review, to strongly associate with behavioural intention, while intention and actual behaviour are found to be positively associated (r = 0. 47) (accounting for 22% of the variance in behaviour) (31). Research has found that PBC accounts " for significant amounts of variance in intention and behaviour" (31) as well as significantly predicting actual behaviour (32-35). In walking interventions, PBC has been identified as a key determinant of behaviour (36) and will therefore be targeted in the current intervention. Creating implementation intentions (specific ‘ if’ – ‘ then’ plans) has also been shown to improve translation of intentions to actual behaviour (37, 38) and are found to be an effective strategy for initiation of leisure-time walking in sedentary women (39) Implementation intentions will therefore also be employed in the current intervention. The TPB has been used successfully to understand and predict exercise behaviour in postnatal women (1, 40, 41). In new mothers, stronger exercise intentions and higher exercise self-efficacy have been found to positively associate with frequent exercise 1 year post birth (42). Pram-walking groups have been used to explore the effect of exercise on postnatal

depression, due to their suitability for most new mothers, however, results are suggested to be inconclusive (43) as studies suggesting exercise may alleviate depressive affect (44, 45) are based on small sample sizes. Researchers have therefore called for further studies to examine exercise in postnatal populations using randomised control trial (RCT) methodology (43) which this study will adopt, informed by previous research studies examining exercise in postnatal women (46-47). The intention of this intervention is to develop the area of limited evidence in this population.

Aim

The aim of this study is to examine whether a TPB based, instructor-led, pram walking intervention for mothers in the postnatal period, is more effective at increasing long-term physical activity levels, than standard NHS postnatal care.

Design

This study will use a prospective longitudinal design to assess physical activity and TPB constructs following a 12 week randomised (exercise) control trial (RCT). An RCT design ensures high internal validity and allows for conclusions to be drawn about an intervention’s predictive nature as well as previous research having demonstrated RCT suitability (46-47). Participants meeting inclusion criteria will complete baseline questionnaires before allocation to either the intervention or control group. To evaluate the usefulness of this intervention, participants will complete a questionnaires examining physical activity and TPB constructs at baseline, post-intervention (12 weeks) and at 6 month, 1 year and 3 year follow-up. Any post-intervention differences will then be examined.

Sample

This study's target population will be mothers in the postnatal period. Participants will be recruited through a volunteer, self-sampling method, in response to adverts distributed by health visitors during infants' 6-8 week health examination. For inclusion in the study, participants will have to meet the following criteria: (a) over the age of 18; (b) attended their six week postnatal check-up and received GP approval for physical activity; (c) given birth in the last 12 months; (d) not currently meeting UK physical activity guidelines. Participants allocated to the control group will receive routine NHS postnatal care. Before commencement, this study would also require ethical approval.

Intervention

This intervention will focus on perceived behavioural control (PBC) and implementation intention as these have been identified, through literature review, as significantly impacting behaviour (31-39). During their infant's six week health visitor appointment, leaflets will be distributed advertising a local, weekly, pram-walking group for ' new mothers' with mothers asked to contact the researcher if they are interested in participating, detailing their current level of physical activity. Mothers meeting inclusion criteria will be sent an information sheet about the study and a consent form and baseline questionnaire pack to complete, before blind, random allocation to either the intervention or control group. The intervention group will be invited to attend a free twelve week, instructor led, pram-walking group in their local area, designed to gradually introduce postnatal physical activity. The groups will run weekly for 1 hour and the two components of PBC will be targeted in

different ways. Volitional control will be targeted through identification of barriers and the possible removal of these (e. g. poor access, expense, lack of childcare and time will be reduced with a free, local pram-walking group for an hour a week) with an assurance the group will run in all weather conditions unless unsafe. Group participation will aim to improve self-efficacy through collective support and the group will also be led by a female instructor who is a mother. It is hoped that this will provide participants with vicarious experience and an encouraging model they can relate to. With instructor support, implementation intentions will be used to form specific ‘ if’- ‘ then’ plans (using a provided template) outlining when, where and how each participant’s intentions will be translated into action (48). This process should also help to identify barriers and how they may be overcome. Finally, the intervention will include questionnaire completion post intervention and at 6 month, 1 year and 3 years follow-up to assess the intervention’s long-term effect .

Assessment

The behavioural outcome for this study is self-reported physical activity and will be measured through completion of the 7-day Physical Activity Recall (PAR) questionnaire (49, 50). The PAR has been objectively validated (51) and provides an estimate of weekly physical activity. The TPB constructs will be measured a using self-report 31 item questionnaire designed by Hales et al. (52), based on Ajzen’s (28) early recommendations and TPB application (53). The measure is based on a literature review of studies done with pregnant women (54) and items are designed to be specific to women in the postnatal period (52). Items measure attitude, behavioural beliefs, subjective

norms, normative beliefs, perceived behavioural control, control beliefs and intention on a 7 point likert scale (52). The PAR and TPB questionnaires will be used at baseline and post-intervention as well as at 6 month, 1 year and 3 year follow-up to assess maintenance and the long-term effect of the intervention.

Limitations

Due to the longitudinal nature of this study, high dropout rates may be a limitation which could potentially lead to attrition bias. This weakness could be addressed by branding the study with a logo, recognisable image and creation of a ‘ study identity’ (55), or by offering incentives for outcome measure completion. As the PAR questionnaire is based on self-reported physical exercise, a second potential limitation is inaccurate participant report in this domain. This may be due to a participant wish to be viewed favourably (social desirability bias) or simply poor information recall but may lead to data which is not fully representative. However, analysis of self-report measures of physical activity has shown high test-retest reliability and modest validity despite finding a lack of motivation for memory recall (56), supporting the usefulness of these measures.

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