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Intervention development for exercise promotion at active charity events in the UK

PLEASE CITE THE PUBLISHED VERSION

https://doi.org/10.1093/heapro/daaa012

PUBLISHER

Oxford University Press (OUP)

VERSION

AM (Accepted Manuscript)

PUBLISHER STATEMENT

This is a pre-copyedited, author-produced version of an article accepted for publication in Health Promotion International following peer review. The version of record Bethany Alice Jones, Fehmidah Munir, Philine S Harris, Prachi Bhatnagar, Clare Stevinson, Intervention development for exercise promotion at active charity events in the UK, Health Promotion International, 35(6), pp. 1341–1352 https://doi.org/10.1093/heapro/daaa012 is available online at: https://academic.oup.com/heapro/advance-article/doi/10.1093/heapro/daaa012/5740026 and https://doi.org/10.1093/heapro/daaa012.

LICENCE

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REPOSITORY RECORD

Jones, Bethany Alice, Fehmidah Munir, Philine S Harris, Prachi Bhatnagar, and Clare Stevinson. 2020. “Intervention Development for Exercise Promotion at Active Charity Events in the UK”. Loughborough University. https://hdl.handle.net/2134/11763987.v1.

Title: Intervention development for exercise promotion at active charity events in the United Kingdom.

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Acknowledgments: We would like to acknowledge the support of Helen Curtis, Shelly Kassam, and Karen Milton in contributing to the project planning group, and Lorna Hartley in facilitating data collection at a Race for Life event.

Funding statement: This work was supported by a cancer prevention innovation award from the Cancer Research UK Population Research Committee (grant number C7647/A25892).

Ethical approval: The study was reviewed and approved by Loughborough University Ethics Approvals (Human Participants) Sub-Committee.

Key words: physical activity, intervention mapping

Intervention development for exercise promotion at active charity events in the United Kingdom.

Abstract

Background: This study used the Intervention Mapping protocol to design an evidence-based intervention package for organisers of active charity events to support their participants in remaining or becoming regular exercisers.

Methods: A mixed-methods approach following the Intervention Mapping protocol was used to develop intervention components. A needs assessment was initially performed to identify the behavioural and environmental determinants of exercise for charity event participants (step 1). Next, the intended intervention outcomes, and performance and change objectives were specified (step 2). Theory-based change methods were selected and matched with practical strategies (step 3). This resulted in the design of the first iteration of the intervention which underwent pre-testing with former event participants and feasibility testing at an active charity event (step 4).

Results: The evidence-based interventions included components to implement at events (e.g., an activity and information zone, and exercise planner), along with elements pre- and post-event (e.g., social media). Pre-testing indicated high acceptability of the planned components, but feasibility testing suggested low engagement with the intervention.

Conclusion: Despite developing the intervention package through the systematic process of Intervention Mapping, preliminary data suggest that further development and testing is needed to refine the intervention before implementation.

INTRODUCTION

Physical inactivity is one of the leading modifiable risk factors for ill-health estimated to account for 9% of premature mortality worldwide (Lee *et al*, 2012). The World Health Organisation (2010) recommends a minimum of 150 minutes per week of moderate intensity physical activity or 75 minutes of vigorous exercise for health maintenance in adults. In the United Kingdom self-reported physical activity data suggest that 42% of women and 34% of men are below this threshold (National Statistics, 2018), and population-wide physical activity promotion has become a national priority in recent years (Department of Health, 2011).

Community-based activity schemes have been highlighted as potentially cost-effective approaches to exercise promotion (Pringle *et al*, 2009), and are recommended for their ability to influence social norms for health and exercise (Department of Health, 2011). In particular, cause-based fundraising events involving physical activity (e.g. charity bicycle rides and fun runs) have been identified as a way of indirectly engaging low-active individuals in physical activity though charitable and social motives (Robinson, 2010). Since events often encourage participation at low levels of exercise intensity (e.g. walking) in a non-competitive atmosphere they are inclusive of those who are not regular exercisers (Bauman *et al*, 2009).

Such events have considerable reach attracting high volumes of people with varying levels of fitness and reasons for participation. A study of 494 college students identified philanthropy and desire to support the charity as the strongest motives for taking part in charity sports events, particularly among females. However, sporting and social reasons were also prevalent (Won & Park, 2010). In another study involving 579 participants of active fundraising events, connection to the charity was the dominant reason for taking part. However, desire to pursue a healthy lifestyle was also identified as a strong motive, suggesting that participants would be receptive to exercise promotion interventions (Bennett *et al*, 2007).

Previous interventions in this context have involved educational materials. Women who had taken part in a mass participation 10km event in Ireland were randomly allocated to receive either a printed booklet tailored to motivational stage of readiness for exercise or a standardised healthy eating booklet (Lane *et al*, 2010). After 6 months, physical activity had increased to a similar degree in both conditions suggesting that the tailored materials had no specific influence, but that participants responded to the informational prompt. Notably the

materials were modified versions of those used in an earlier study in Australia, rather than being specifically designed for the population and setting.

One systematic and effective approach to intervention development is Intervention Mapping, a six-step iterative process specifically intended for health promotion (Bartholomew *et al,* 2016). The Intervention Mapping protocol acknowledges both personal and environmental determinants of behaviour and ensures that interventions are grounded in theory (Brug *et al*, 2005). This approach has previously been used to design successful physical activity promotion interventions (Gillison *et al*, 2012; McEachan *et al* 2008).

This study employed the Intervention Mapping protocol to design a scalable intervention package that can be implemented by charities delivering physically active fundraising events, in order to support their participants in maintaining or adopting regular exercise. It focused specifically on Race for Life, a national series of annual women-only non-competitive 5km or 10km runs/walks, organised by Cancer Research UK. Over 500,000 women take part across more than 300 Race for Life events each summer, contributing to its status as the biggest fundraising campaign in the UK (The Civil Society, 2017; Third Force News, 2015). Previous data based on 228 women taking part in Race for Life (McVinnie *et al*, 2017) indicated that nearly a quarter (22%) of participants reported being typically inactive or low active, and a large proportion (47%) were overweight or obese. Notably, women who walked the event (36%) had significantly lower levels of self-efficacy and intrinsic motivation for exercise than women who ran or jogged. The Race for Life population was therefore recognised to have potential for benefit from an intervention aimed at promoting maintenance or adoption of regular exercise. If the intervention package developed here ultimately proves effective after implementation and evaluation, continued research using the Intervention Mapping protocol will be undertaken to adapt it to the different settings and populations of other active fundraising events.

METHOD

A planning group was established to guide the Intervention Mapping process involving Race for Life staff and participants, members of the research team, and an independent academic.

Step 1. Needs assessment

The first step of the process was to assess the behavioural and environmental determinants of exercise after active charity events. The needs assessment involved a rapid review of relevant literature, and interviews with Race for Life organisers and participants.

For the rapid review, literature concerned with mass participation charity events and reviews of interventions for promoting physical activity were located through searching four electronic databases (Pubmed; SportDiscus; PsychInfo; Web of Science). To locate literature on mass participation charity events, terms relating to physical activity (e.g. sport*, walk*, run*, cycl*, exercis*, activ*) were combined with search terms related to charity (e.g. charit*, fundrais*). These searches returned 996 results and after screening, 25 articles were included (supplementary file). For the search of reviews of interventions for promoting physical activity, search terms included physical activ*, exercis*, intervention*, and the search was restricted to reviews. This search returned 591 articles with 34 retained following screening (supplementary file).

Four employees of Cancer Research UK who were involved with Race for Life or other active fundraising events took part in semi-structured telephone interviews to explore approaches that may be effective in this context to support regular physical activity. Interviews were also undertaken with 20 women who had previously taken part in a Race for Life event to explore motives for signing up and perceived outcomes of participation, along with barriers and motivation relating to exercise outside of active charity events. Interviews were recorded, transcribed verbatim, and systematically coded to identify common themes (Braun *et al*, 2016).

Step 2. Identification of intended outcomes and performance objectives

The second step of the process involved identifying the expected behavioural and environmental outcomes from the intervention in the target population and defining performance objectives for these outcomes. Performance objectives include a description of what is required of the target population to perform the behavioural outcome, or how environmental conditions will be modified. This led to the creation of a matrix of change in which the change objectives are specified. The matrix combines the evidence-and theory-based determinants of the behavioural and environmental outcomes that were identified as part of the needs assessment with the performance objectives. Change objectives indicate

what needs to change in the determinant to affect the performance objective and represent the most immediate targets of an intervention.

Step 3. Programme design

Step 3 involved designing the intervention under the guidance of the planning group. Theory- and evidence-based change methods were selected on the basis that they could address the change objectives from step 2. This involved identifying approaches appropriate for influencing the determinant for each of the specific change objectives and considering the known parameters for effectiveness. Ideas for the intervention identity were also generated as well as discussing the components of the intervention and delivery schedules.

Step 4. Programme production

In step 4 the intervention materials and protocols were generated based on the designs agreed with the planning group. Pre-testing of all the provisional intervention components involved six former Race for Life participants who accessed electronic versions of each intervention component and provided ratings and free-text feedback on acceptability via an online questionnaire.

Pilot-testing was undertaken at a Race for Life event to examine the feasibility of delivering the intervention package and participant engagement. Adult women who had completed the 5km event were invited to view materials and complete a short questionnaire on the day of the event. This included a measure of recent exercise based on the Godin Leisure-Time Exercise Questionnaire (Godin and Shephard, 1985). Participants recorded the frequency and duration of light, moderate and strenuous exercise sessions performed during leisure time across a typical week in the past month. They also rated five determinants of exercise from 0 (not at all) to 10 (completely) to indicate the extent of their: (1) confidence; (2) motivation; (3) social support, (4) knowledge, and (5) ability to plan exercise. Email addresses were requested so that follow-up questionnaires about engagement with the intervention and exercise levels could be sent one month after the Race for Life event. Participants were given all materials to keep and were told that for each completed follow-up questionnaire received, a small donation (1GBP) would be made to Cancer Research UK.

Steps 5 and 6. Programme implementation and evaluation plans

From the start of the intervention planning process, both implementation of the intervention and evaluation should be considered. If, after step 4, the intervention is ready for adoption, a detailed plan for implementation should be finalised as well as a matrix of change objectives based on outcome and performance objectives for programme adoption, implementation and maintenance (step 5). The evaluation plan should also be finalised (step 6) and this should include both assessments of effect (effectiveness of the intervention) and process (delivery of the intervention).

RESULTS

Step 1. Needs assessment

Evidence for mass participation charity events: Common reasons for taking part in mass charity events included wanting to: support a good cause, experience a sense of camaraderie, feel connected to the event, increase physical and mental health, and undertake a personal challenge (Bixler, 2014; Filo *et al*, 2008, 2009, 2010, 2011, 2014; Filo *et al,* 2013, Jeffery, 2012; Rundio *et al,* 2014; Scott and Solomon, 2003; Snelgrove *et al*, 2013; Won and Park, 2010). Similarly, outcomes reported from event participation were feeling an attachment to the charity (Filo *et al*, 2010; Filo *et al*, 2012; Snelgrove *et al*, 2013), camaraderie (Filo *et al* , 2008; Filo *et al*, 2013), positive wellbeing (e.g., joy) and a sense of achievement (Filo and Coghlan, 2016).

Reviews of interventions for promoting physical activity: Interventions that were underpinned by behavioural theories were found to be better designed and more effective than a-theoretical interventions (McIntosh *et al*, 2017). Common evidence-based behavioural techniques employed were: goal setting, self-monitoring, follow-up prompts, barrier identification, problem solving, and motivational interviewing (Avery *et al*, 2012; Avery *et al*, 2015; French *et al*, 2014; Fjeldsoe *et al*, 2011; George *et al*, 2012; Greaves *et al*, 2011; Middelweerd *et al*, 2014; Murray *et al*, 2017; Samdal *et al*, 2017). Multi-component approaches tended to be most effective (Fjeldsoe *et al*, 2011; George *et al*, 2012; Goode *et al*, 2012; Greaves *et al*, 2011; Jenkins, 2009; Richards *et al*, 2013; Schoeppe *et al*, 2016), and electronic delivery methods were well supported (Hakala *et al*, 2017; Oosterveen *et al*, 2017). Finally, interventions involving social media were identified as useful for self-monitoring, observing others engage in exercise, accessing motivating quotes, and creating social connectedness, although overall effectiveness on physical activity behaviour was mixed (Maher *et al*, 2014, McIntosh, , 2017; Laranjo *et al,* 2014; Williams *et al*, 2014).

Interviews with event organisers and participants: Analysis of the four interviews with the Cancer Research UK employees identified several strategies to consider for the intervention. These included the provision of a training plan in advance of the charity event to instil a pattern of regular exercise motivated by the goal of race completion. Other suggestions involved encouraging participants on the day of the event to make future exercise commitments or pledges and to sign up to local exercise opportunities. Ways of consolidating the sense of achievement from taking part through providing a memory of the day (e.g. a finisher's photograph) were discussed along with the importance of promoting health and well-being benefits of exercise. For the interviews with event participants, a summary of findings relating to motives and outcomes of taking part in Race for Life, along with barriers and facilitators to exercise outside of the charity event is provided in Table 1.

Step 2. Identification of intended outcomes and performance objectives

The overall expected behavioural outcomes from this intervention were the maintenance, increase or adoption of regular exercise among charity event participants. The expected environmental outcomes were: support from friends and family to exercise regularly, identification of exercise role models (interpersonal environment), and awareness of difference exercise opportunities (community environment). Next, performance objectives were developed by listing the steps that were required to achieve the intervention outcomes. The needs assessment identified several determinants from Social Cognitive Theory (Bandura, 1986) as relevant for this intervention (self-efficacy, social support, outcome expectations and expectancies, knowledge and self-regulation). The matrix of change was developed by crossing the performance objectives with the determinants (Table 2).

Step 3. Programme design

Theory and evidence-based change methods that would address the change objectives were selected. This list of change methods was presented to the planning group and refined. The change methods selected are presented in Table 3 along with the parameters for effectiveness and the practical strategies that were agreed by the planning group. Discussions around programme identity led to the name "Good Start" for the intervention package.

Step 4. Programme production

The first draft of the intervention materials that incorporated the practical strategies outlined in step 3 were designed incorporating five related components as outlined below.

Postcard: The postcard was given to participants after crossing the finish line. Based on self-affirmation principles, the postcard encouraged participants to identify their positive feelings after completing the event (e.g. pride, happiness) through a checklist and to reflect on these in the future to stimulate exercise motivation.

Good Start zone: At the Race for Life event the Good Start zone consisted of a coloured gazebo and a large Good Start flag displaying the logo. Within the zone, exercise equipment was available with Good Start helpers to introduce participants to some taster activities (e.g. hula hoop, mini-trampoline, lolo ball), as examples of low-cost forms of exercise not requiring space or facilities. A poster was displayed within the zone that included different exercise opportunities to remind participants of the range of options available. Materials for participants to take away included educational puzzles conveying information on exercise benefits and lists of nationwide free or low-cost exercise opportunities. Copies of the Good Start exercise guide (described below) were also available to participants in the zone.

Good Start exercise guide: The Good Start guide included exercise and health information, advice and encouragement. Space was provided to develop weekly exercise goals and make action plans relating to exercise. Four weeks of planners were included within the guide, with a weblink provided through which more planners could be downloaded. Exercise tips, images, and quotations from former Race for Life participants were incorporated within the guide.

Social media: An Instagram page dedicated to the intervention was developed including photographs with motivating exercise quotes, Race for Life participant quotes, and exercise hints and tips. A hashtag was also generated through which Race for Life participants could share their exercise journey by using the hashtag on Instagram.

Pre-event and post-event emails: E-mails were planned for participants before and after their Race for Life event. Pre-event this included an introduction to the Good Start project, and an invitation to visit the Instagram page, and to visit the Good Start zone at the event. The list of suggested exercise opportunities was also linked to assist participants in preparing for the

5km event. Post-event the e-mail congratulated participants on completing the 5km and repeated the invitation to visit the Instagram page for support in maintaining exercise. There was also a link to the list of exercise opportunities and to further exercise planners available to download.

Pre-testing: Overall, the intervention components were rated highly by the pre-testing sample (n = 6). Based on their feedback more content and images were added to the Instagram page and Good Start guide to ensure that they were relevant to women of all ages and fitness levels.

Pilot testing: In total 97 women completed the questionnaire, with a median age of 41 years (interquartile range: 27-51). Participants reported a median of 100 minutes per week (interquartile range: 23-172) of moderate-strenuous exercise in the past month and 30 minutes (interquartile range: 0-120) of light exercise. Just over one third of the sample (34.0%) was meeting the public health guideline of ≥150 minutes per week of moderate-vigorous physical activity. Median ratings (out of 10) were high for all exercise determinants: confidence (7), motivation (7), support (7), knowledge (8), planning (6).

Fourteen participants did not provide their email address and a further 15 addresses were invalid, hence 69 people were emailed the follow-up questionnaire one month later of which 15 completed the questionnaire (22% response rate). The majority of participants completed the postcard after the Race for Life event (n = 12). However, only two reported reflecting on their responses in the following weeks. The components of the Good Start exercise guide were rated as useful by most participants: exerciser planners (n = 9), goal-setting (n = 9), exercise tips (n = 11), health information (n = 10), participant quotes (n = 13), exercise opportunities (n = 10), except for the educational puzzles (n = 5). Of eleven participants who reported visiting the Instagram page, eight rated the content as slightly motivating, and two as very motivating. None of the participants reported visiting the Good Start zone due to not realising the zone existed (n = 11), being too hot and tired (n = 2) or having insufficient time to visit (n = 2).

A comparison of the exercise levels reported by the 15 women at baseline and 1-month follow-up indicated no significant group-level changes for moderate-vigorous exercise or light exercise through Wilcoxon signed-rank tests ($p > .05$). Individual participant data

revealed mixed patterns of change. Among six women who were meeting physical activity guidelines at baseline, three continued to do so at one month, and three others had dropped below guideline levels. Of the nine who were insufficiently active at baseline, four had increased exercise to meet the guidelines. There were also no significant changes observed in the ratings of exercise determinants and an inconsistent pattern of small increases and decreases across the sample.

Although implementation (step 5) and evaluation (step 6) plans had been considered from the outset of the project the planning group agreed that the preliminary testing results were not sufficient to recommend implementation or evaluation given the low response rate to the follow up questionnaire, and limited engagement with the intervention components. Instead it was proposed that earlier stages of the Intervention Mapping process were revisited before more comprehensive pre- and pilot-testing.

DISCUSSION

This study used the Intervention Mapping protocol to develop an intervention package that could be implemented in relation to Race for Life fundraising events, to support maintenance or adoption of regular exercise. The intervention components designed through this systematic process were evidence-based and tailored to the needs of charity event participants.

Despite positive indications of acceptability from pre-testing, there was low engagement with most intervention components during pilot testing. This made it difficult to interpret the potential value of the intervention for future evaluation, with no consistent patterns of maintenance or change in self-reported exercise one-month after the event, and no change in the core determinants of exercise on which the intervention was based.

This study supports existing evidence that exercise is a challenging behaviour to change in any setting (Marcus *et al,* 2000; Marcus *et al*, 2006). Reviews of physical activity change interventions suggest that the most promising approaches are comprehensive multi-component individualised programmes with ongoing booster strategies (Müller-Riemenschneider *et al*, 2008). However, provision of intensive schemes can be limited by cost and available personnel for delivery, and the long-term sustainability of behaviour has not been established (Müller-Riemenschneider *et al*, 2008). Similarly, community-wide

interventions have had limited success in bringing measurable change in physical activity in the populations studied (Baker *et al*, 2015). The need for effective approaches that can be implemented on a large scale remains strong.

A strong theoretical basis is recommended for behaviour change interventions, and this is a core part of the Intervention Mapping process. Constructs from Social Cognitive Theory (Bandura, 1986) emerged as important from the needs assessment and were used in the design of the intervention components. This theory is one of the most widely used in physical activity intervention research (Marcus *et al.*, 2006), and self-efficacy in particular has been identified as a consistent predictor of physical activity across the lifespan (Bauman *et al*., 2012). A meta-analysis of 27 studies in healthy adults suggested that interventions based on self-efficacy led to small but significant changes in both underlying self-efficacy and physical activity behaviour (Williams and French, 2011). Some of the strongest results were for goal-specific action planning interventions, which was one of the key features of the Good Start exercise guide. Nonetheless, despite theoretical and empirical evidence supporting the key components of the Good Start intervention, engagement was low hence the importance of revisiting earlier steps of the Intervention Mapping protocol.

A major strength the Intervention Mapping approach is the flexibility to return to earlier stages of the process to ensure the change objectives and methods are appropriately targeted for the population and the intervention design is robust. The current study recruited small samples for the needs assessment as well as for pre and pilot testing. However, there may be value in including larger samples across the diverse target population to help identify a broader range of exercise determinants and improve the intervention design.

Conclusion

This study followed the Intervention Mapping protocol to develop a theoretically based intervention package aimed at supporting participants of a physically active fundraising event in maintaining or adopting regular exercise beyond the event. Preliminary data did not suggest proceeding to the steps of implementation and evaluation, and further development and testing is required to refine the intervention.

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Table 1. Main findings from the Race for Life participant interviews

Main findings	Illustrative quotes
Motivation for taking part in charity event	
• To raise money for a charity that held personal relevance.	*"Because I'm raising money for a charity, it encourages me to do it [Race for Life]" (Participant 01)*
• To run in memory of someone or support someone with cancer.	*"We wanted to do something to support them, those who have survived and also in memory of those who haven't" (Participant 14)*
• Inclusivity of the event (i.e., open to all abilities).	*"We chose to walk it because that's just what we preferred and there was no pressure. We just kind of bumbled along at own pace, there was no competitive side to that at all." (Participant 13)*
• For a physical activity challenge.	*"It's about thinking I can still do this…for me as well it was just a bit of a challenge." (Participant 14)*
• To have fun.	*"I just think it [Race for Life] is a really fun thing for everyone to do." (Participant 12)*
• To assess own running ability.	*"I felt that it was a way of confirming that I was really back to full fitness." (Participant 10)*
Outcomes from taking part in charity events	
• Increase in short-term mood.	*"I was buzzing after Race for Life." (Participant 14)*
• Increase in self-efficacy for exercise.	*"I think reassurance that I can still run 5k. I guess it builds confidence as well." (Participant 11)*

• Feeling of contributing towards a good cause.	*"It's good for my own health and also it's my way of doing something for a very good cause and to remember my Mum." (Participant 8)*
Barriers to physical activity	
• Lack of motivation.	*"Feeling like I can't be bothered a lot of the time." (Participant 17)*
• Lack of time.	*"When I went back to work I obviously don't have time." (Participant 19)*
• Bad weather/dark evenings.	*"It's now really cold and dark and I don't want to do it." (Participant 11)*
• Child care responsibilities.	*"With kids you don't always… and I have always worked full-time… you don't always get the chance to do things for yourself." (Participant 14)*
Facilitators to physical activity	
• To have a training plan.	*"I think definitely once a routine has kicked in then it is easier." (Participant 6)*
• Having a goal to work towards	*"To keep running I have sort of targets and goals." (Participant 20)*
• Being a fun atmosphere.	*"Actually you enjoy it [exercise] more when there's a fun atmosphere." (Participant 17)*
• Being able to exercise with friends and family.	*"Also because just lots of friends were doing it and I thought yeah I want to do it as well." (Participant 13)*

Table 2. Matrix of change objectives for charity event participants

	Personal determinants					
Performance objectives	**Knowledge**	**Attitude**	**Self-regulation**	**Self-efficacy**	**Outcome expectations and expectancies**	**Social influence**
1) Decision to train/prepare for charity event	Recognise the health benefits (specifically cancer risk) of deciding to train/prepare.	Express a positive attitude towards the benefits of training.		Express confidence in being able to train/prepare.	Express a belief that training/preparing will be positively associated with completion of the charity event.	Experience support for exercise from family and friends
2) Set exercise goals				Express confidence in achieving goals.	Express a belief that the goals set will facilitate becoming a regular exerciser. Express that they value the health benefits of regular exercise.	
3) Decide on a weekly routine in terms of frequency, time and type of exercise	Recognise times of the day when exercise is achievable.		Implement a gradual increase in the intensity of exercise that the plan prescribes.	Express confidence in adhering to the exercise routine and being able to engage in the type of exercise		Family and friends to approve and respect weekly exercise routine.

			prescribed in the regime.		
4) Follow the exercise plan prior to the event	Express positive feelings towards exercising.	Appraise exercise goals and revise if necessary.	Express confidence in being able to follow the exercise plan.		
5) Engage in a pledge to be active following the event				Believe that making a pledge will result in greater exercise levels. Value the health benefits of greater exercise levels.	Family and friends to be supportive of exercise pledge and be respectful of commitment.
6) Engage in post-event exercise	Express positive feelings towards post-event exercise.	Revise exercise goals to ensure regime is relevant. Modify the exercise plan to ensure the intensity of exercise is being built upon	Express confidence in being able to evaluate exercise plan and modify accordingly.		

7) Maintain post-event exercise	Describe the health benefits (specifically cancer-related benefits) of exercise.	Express a positive attitude towards maintaining exercise long-term.			Express a belief that continuing to be active will increase health and reduce cancer risk.
8) Manage exercise relapse			Revise the days and time exercise is being performed to ensure the plan is still achievable. Revise the type of exercise being engaged in if necessary (i.e., due to a change in time of year/weather/day-time hours).	Express confidence in being able to evaluate exercise plan and modify accordingly.	Express a belief that being a regular exerciser will have a positive outcome(s)

Table 3. Determinants, change methods and practical applications

Determinant	Change method	Practical application	Parameters for effectiveness
Knowledge **Attitude** **Outcome expectations & expectancies**	Active learning	Design educational puzzles such as word searches and crosswords where participants can search for words to complete health and well-being related statements.	Ensure content is easy to understand and evidence-based, and that tasks are achievable.
Knowledge	Facilitation	Provide event participants with a wide-ranging list of available free or low-cost exercise opportunities that could appeal to individuals with different interests abilities, and circumstances.	The options provided should reduce barriers to participation.
Self-efficacy	Self-monitoring	Design an exercise planner where event participants can record 'what' exercise they plan to do, 'where' and 'when' they plan to do it, and track completion.	Monitoring should be of the behaviour itself rather than outcomes and information should be available for participants to use.
Self-efficacy	Goal setting	Provide space for event participants to set weekly exercise goals (with example goals).	Goals should be suitably difficult but within the individual's capability. Achievement of goals requires commitment by the individual.
Self-efficacy	Modelling	Provide event participants with a choice of role models via photographs and stories. Include explicit examples of coping (e.g., "it was not easy to exercise after having a baby but I built up the amount of exercise I did each week and now I make time to exercise 3 times a week").	Role model options should take into account attention and remembrance and should be identifiable for participants. Models should demonstrate relevant skills and self-efficacy, with reinforcement of behaviour represented. Models should be based on a coping model rather than mastery.

Outcome expectations and expectancies	Self-affirmation	Allow event participants to evaluate how they feel after the charity event and why it is important to them to become a regular exerciser.	Event participants should be prompted to reflect on these responses when feeling demotivated to exercise.
Social influence	Facilitation	Develop messages that encourage participants to include friends/friends when possible. Provide information on exercise opportunities that enable participation with others.	Include information to enable the behaviour or reduce barriers to participation.