Summary Report
14 December 2021

THE UNIVERSITY OF QUEENSLAND
AUSTRALIA
CREATE CHANGE

Active Choices: A ‘stepped-down’ program to promote self-managed physical activity in DVA clients

1. Introduction

- Assisting DVA clients in 'stepping down' to self-managed physical activity (PA) may promote a range of positive health outcomes associated with regular PA participation and sustain the health benefits achieved through allied health treatment. Specifically, linking veterans to group-based PA and community networks may provide strong support for PA outside of treatment through facilitating social connections and psychological wellbeing.
- Given that very little is known about stepped-down models of care and appropriate strategies to transition DVA clients to self-managed PA following treatment from an allied health professional, the overarching aims of this project were to:
    - **Aim 1.** Critically and systematically review existing stepped-down models of care relating to PA, with a specific focus on military service veterans and their dependents.
    - **Aim 2.** Consult with a national sample of exercise physiologists (EPs) and physiotherapists to understand their experiences in supporting DVA clients to self-manage PA.
    - **Aim 3.** Use findings from the review and consultation process to inform *Active Choices*, a stepped-down program to support DVA clients as they transition from allied health treatment to self-managed PA.
    - **Aim 4**. Implement a trial of the *Active Choices* program and evaluate its potential impacts on PA, social connectivity, psychological wellbeing and allied health service utilisation and costs in a recruited sample of DVA clients.

2. Rapid Evidence Assessment

- A Rapid Evidence Assessment was completed to systematically review the evidence-base for the effectiveness of stepped-down programs to promote self-managed PA in veterans and their dependents (July 2019 to November 2019). 28 relevant papers were identified through literature searches and analysed in this review.
- The review findings highlighted that stepped-down programs have the potential to help veterans as they transition from allied health treatment to self-managed PA. The quality of the evidence-base was rated as 'good', and a positive intervention effect was observed in the majority (58%) of included studies.
- The findings identified key behaviour change techniques (BCTs) that should be embedded within stepped-down programs, including social support, goal setting, goal review, self-monitoring and education. These BCTs were most commonly used in effective stepped-down programs.
- The review also highlighted the need for a program such as *Active Choices*, with this study being the first to examine the effectiveness of a PA self-management intervention in Australian veterans and their dependents.

3. Stakeholder Consultations

- Stakeholder consultations were completed with a sample of 65 Australian EPs and physiotherapists to canvas their experiences of supporting DVA clients to self-manage PA (July 2020 to November 2020). These data were collected through two methods: an online survey and focus group interview.
- Findings identified key facilitators and barriers to self-managed PA for DVA clients. Social support and client confidence to self-manage PA were important facilitators, while the presence of a chronic health condition and a lack of interest in self-managing PA were significant barriers. Stepped-down programs should consider how they can target these key barriers and facilitators to PA.
- EPs and physiotherapists reported that it can be challenging to find sufficient time during treatment sessions to adequately cover self-management strategies. This highlights the potential value of a stepped-down program, such as *Active Choices*, which can work in tandem with allied health treatment to assist DVA clients in transitioning to self-managed PA.

4. The *Active Choices* Program

- The *Active Choices* program is based on a strong theoretical framework and incorporates evidence based BCTs to support clients as they transition to self-managed PA. These BCTs include education, goal setting, goal review, self-monitoring, action planning and social support.
- The 12-week program comprises of two 1-hour face-to-face consultations (held in Weeks 1 and 12) and two 30-minute telephone consultations (held in Weeks 4 and 8), which clients completed individually with a program facilitator (see Figure 1). During these consultations, clients created their individualised *Active Choices* program with the support of their facilitator and are linked into local opportunities for their PA preferences. The BCTs embedded in the program are used to support the development of psychological skills to self-manage PA.
- The program is supported by a resource booklet containing educational and behaviour change materials which clients use during the consultation sessions and independently at home. For this research, participants were also eligible to receive financial support to assist access to PA choices (maximum of $20/week). Meet-and-greet sessions were held to provide opportunities for clients to interact and form new social connections.

Figure 1. A sample of the *Active Choices* resource booklet showing an overview of the program schedule.

5. Methods

- A single group, pre-post design was used to assess the *Active Choices* program (August 2020 to October 2021). The study recruited DVA Gold and White Cardholders who were receiving treatment from an EP or physiotherapist, and were considered by this health professional to be ready and able to participate in self-managed PA.
- Participants were recruited through EP and physiotherapy practices who referred eligible clients to the program, and advertisements directly targeting DVA clients that were shared through DVA and ex-service organisation communication channels (August 2020 to June 2021). All participants received the 12-week *Active Choices* program in conjunction with usual care from their EP or physiotherapist.
- Device-based and self-report measures of PA (primary outcome) and survey measures of social connectivity and psychological wellbeing (secondary outcomes) were completed at three assessment timepoints: baseline (Week 0), end-program (Week 12) and follow-up (Week 16). To assess health service utilisation and costs during the study period (secondary outcome), participant's health service use data were accessed.
- Interviews were also completed with participants at end-program and follow-up to explore the extent to which involvement in the program promoted self-managed PA, social connectivity and psychological wellbeing.

- Quantitative analyses assessed change in PA relative to Australian PA guidelines (i.e., at least 150 minutes/ week of moderate-intensity PA), social connectivity and psychological wellbeing across the three assessment timepoints. Thematic analysis was used to analyse process and interview data.

6. Recruitment and Participants

- 35 participants were recruited into the study. Participants were typically older male veterans (mean age = 61 years; 77% male), who lived with their partner, children, or both (68%); were retired (56%) and had acquired an educational qualification past high school (80%).
- The majority of the sample (94%) were non-smokers. Most (62%) met current nutrition guidelines for fruit consumption, but few (6%) met guidelines for vegetable consumption. The majority (68%) did not engage in hazardous drinking, or only did so less than monthly. Most of the sample (68%) were overweight or obese (average BMI = 29 kg/m^2).
- The most successful recruitment strategy involved advertising the program directly to clients through DVA and ex-service organisation communication channels. 75% of expressions of interest and participant sign-ups came from these sources, highlighting this recruitment process as a preferred option for future work.
- Limited client referrals (*n* = 8) were received from EP and physiotherapy practices. Feedback from these practices during the recruitment phase of the project highlighted the impact of COVID-19 on client availability and access via allied health practices.

7. Key Findings

7.1 Physical Activity

- Device-based measures indicated that only 16% of the sample were meeting the recommended guidelines for PA (i.e., 150 minutes/ week of moderate-intensity PA) at baseline. At the end of the program, this had increased to 42%.
- Self-report measures showed a median increase of 599 MET.minutes/week between baseline and follow-up.
- Self-accountability was a key mechanism underpinning this PA change. Participants frequently identified three BCTs within the program which they believed drove their motivation and accountability, and consequently, improved their PA levels: self-monitoring, action planning and goal setting.

7.2 Social Connectivity

- 46% of the sample reported at the end-program interview that their social connectivity had improved as a result of the program. This was achieved through attending the program's meet-and-greets and engaging in group-based PA opportunities that were supported through *Active Choices*.
- The quality of the sample's social group networks improved from pre- to post- program, with these networks continuing to grow post-program. Survey measures showed an increase in sense of belonging to multiple social groups and the number of high-quality social groups over the course of the study.

7.3 Psychological Wellbeing

- At interview, 76% of participants reported benefits to psychological wellbeing. Process and interview data identified improvements in mood, and a sense of achievement that was experienced through self-management of PA regimes.
- Survey scores on anxiety and depression were seen to reduce over time, with the proportion of participants reporting no issues increasing from 26% at baseline to 40% at follow-up.

7.4 Allied Health Service Utilisation and Cost

- Participants incurred less costs for EP and physiotherapy services during the study ($60.51/week) than the 'average' DVA client who accessed these services in 2020 ($97.06/week), although caution should be used in assuming this was due to the intervention given the absence of a comparative group.
- At the follow-up interview, 36% of participants (n = 9) identified that they were seeing their EP or physiotherapist less frequently or not at all and had, through the support of the program, started self-managing their condition more regularly at home.

8. Conclusions

- Research activities were completed against the context of the COVID-19 pandemic, which raised significant challenges for participant recruitment, interaction with clients, and the study timeline and duration. Despite these challenges, the completed research is unique in being the first to explore PA self-management issues in DVA clients.
- The data provides evidence that *Active Choices* had a positive impact on those DVA clients who participated in the program. There was evidence of an increase in PA across the program and into follow-up, with participant feedback highlighting a move towards more self-managed PA. Improvements in social connectivity and support networks were observed, with this facilitated by

engagement with local PA communities. Aspects of psychological wellbeing, such as positive mood, were also seen to improve over the duration of the study.

- A future direction for ongoing research concerns how *Active Choices* might be upscaled to benefit DVA clients across Australia. A viable option for future testing at scale would be the transition of the program to an online telehealth program capable of also reaching and providing support for veterans in regional, rural and remote areas.

THE UNIVERSITY OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Contact Details

A/Prof Nicholas Gilson
T +61 7 3365 6114
E n.gilson1@uq.edu.au