

Consumer Evaluation of the Jump Step Program for People with Mood Disorders: Implications for Program Development

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ABSTRACT

An extensive body of literature supports the mental health benefits of exercise. Some clinicians are starting to embrace the concept “exercise is medicine.” In our study, we evaluated longitudinal qualitative data from participants with a mood disorder who participated in an exercise program. Recommendations from participants include providing a program that offers a variety of exercise options supported by professionals such as an exercise specialist in a community setting. Researchers and clinicians can take our results into account when designing or running similar programs for people with mood disorders.

Keywords: physical activity, exercise program, major depressive disorder, bipolar II, mental health

RÉSUMÉ

Un vaste corpus de publications démontre les bienfaits de l'exercice physique sur la santé mentale. Certains cliniciens commencent à embrasser le concept de « l'exercice est un médicament ». Dans le cadre de notre étude, nous avons évalué des données qualitatives longitudinales de personnes inscrites à un programme d'exercice qui souffraient de troubles de l'humeur. Les recommandations formulées par les participants incluent entre autres la mise en place d'un programme proposant une variété d'exercices

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physiques menés en milieu communautaire, sous la supervision de professionnels tels des spécialistes de l'exercice. Les chercheurs et les cliniciens peuvent tenir compte des résultats dégagés de notre étude lors de l'élaboration ou de la mise en œuvre de programmes analogues, destinés aux personnes souffrant de troubles de l'humeur.

Mots clés : activité physique, programme d'exercices, troubles dépressifs majeurs, troubles bipolaires II, santé mentale

BACKGROUND

Substantive current evidence suggests that physical activity improves mental health (Atlantis, Chow, Kirby, & Singh, 2004; McGale, McArdle, & Gaffney, 2011) and is a viable treatment for depression (Schuch et al., 2016). However, research evidence differs with regard to the effect of the intensity or mode of physical activity on mental health, with some demonstrating that vigorous exercises are more beneficial than moderate exercises (Gerber et al., 2014), and others saying that those with a low, moderate, or vigorous intensity are all effective in treating depression (Helgadóttir, Hallgren, Ekblom, & Forsell, 2016). Exercise participation in their preferred intensity, as opposed to prescribed intensity, has been shown to improve psychological and physiological outcomes, and exercise participation rate in women with depression (Callaghan, Khalil, Morres, & Carter, 2011). Exercise at self-selected intensity also enhances emotional elements such as affect and arousal in individuals with severe depression (Stanton, Reaburn, & Happell, 2016). Amongst adolescents, a mixed methods study comprising a randomized controlled trial and focus groups and interviews has shown that an exercise program with participants' preferred intensity reduced depression six months post-intervention (Carter, Callaghan, Khalil, & Morres, 2012; Carter et al., 2015). These young people also experienced improved mood, achievement, and enjoyment from exercises of their chosen intensity according to their preferences (Carter, Morres, Repper, & Callaghan, 2016).

Besides intensity, the mode of exercise and its effects on mental health have also been studied. Multimodal exercises that include aerobic exercises (treadmill, bicycle, stepper, or concept II rowing machines) and weight training components (machine weights and free weights) have been shown to be as effective as single-modal exercises for improving depressive symptoms (Atlantis, Chow, Kirby, & Singh, 2004). In a study, group exercise programs led by highly trained instructors achieved higher adherence rates and satisfaction ratings by inpatient individuals with a mood disorder compared to creative expression groups doing arts and crafts and relaxation therapies (Stanton, Donohue, Garnon, & Happell, 2016). Alternative forms of exercise such as yoga (Roche, Barrachina, & Fernandez, 2016), Pilates (Roh, 2016) and Tai Chi (Song et al., 2014) have also been clinically evidenced as means to improve depression or anxiety disorder. In general, it has been shown that physical activity of various forms and intensity elicits positive effects among individuals with a mood disorder.

In addition to the above-mentioned quantitative evidence, there exists qualitative evidence that points to the myriad benefits of physical activity for mood disorders. A qualitative study with mental health service users' experiences with sports therapy concluded that physical exercise intervention is an acceptable and

beneficial addition to usual treatments for mood disorders. Some benefits are its therapeutic effects and opportunities to build social connectedness with people who share similar experiences (Crone & Guy, 2008). Another qualitative study focusing on the perceptions of a physical therapy exercise intervention for major depression found that the program improved the individuals' self-perception of their physical ability and created a sense of liveliness (Danielsson, Kihlbom, & Rosberg, 2016). A third qualitative research project targeting people with bipolar disorder found that exercise regulates mood and brings structure to a chaotic life albeit having its barriers to participation (Wright, Armstrong, Taylor, & Dean, 2012). The structure refers to one's daily routine as well as an internal structure of the body resulting from rhythmic exercises such as running, walking, swimming, and cycling. The less-mentioned barriers to exercise participation refer to a fear of upsetting a person's mental state and a fear of exercise triggering or exacerbating a manic episode. Overall, both quantitative and qualitative studies have demonstrated the physiological, psychological, and social merits of an exercise program for individuals with a mood disorder.

Guided by existing research, our study focused on identifying the key components of an ideal exercise program in the community for individuals with a mood disorder. In our study, we collected qualitative data from participants with a diagnosis of either major depressive disorder (MDD) or bipolar disorder II (BP II) who went through a 14-week exercise program designed for individuals with a mood disorder by our research team (Adams et al., 2015). The purpose of this article is to report on the specific preferences from the participants regarding the content (what should be included) and delivery (how should it be run) of such a program. The findings can be used to inform the development of similar programs. The benefits and significance of using a community-based, participatory approach in the Jump Step program development and evaluation have been elucidated in a published article (Sims-Gould et al., 2017) and therefore will not be repeated here.

METHODS

Overview of Jump Step Program

The main goal of Jump Step was to help the participants reap the benefits of physical activity by engaging in a structured exercise program in a group setting designed specifically for individuals with mood disorders. The Jump Step program was co-designed with potential participants in a needs assessment (Sims-Gould et al., 2017) and offered at a fitness facility in a downtown location for 14 weeks. This not-for-profit facility was in a location accessible by both automobiles and public transit. It was open to the public with varying user flow throughout the day. No fee was charged to enroll in the Jump Step program. We provided free parking at the facility or bus tickets to the participants depending on their mode of transport. Each session had two components: (1) an educational component to allow the participants to learn about various topics associated with mental health including the benefits of physical activity, goal-setting, and strategies for improving mental health; and (2) a physical activity component for the participants to take part in a low-to-moderate-intensity physical activity such as weight training, aerobic workout, or sports games. There were two sessions each week and both sessions were scheduled in the early-to-mid-afternoon on a weekday. Each session lasted for approximately two hours. The professionals who led the components of the different sessions included psychiatrists, certified sports coaches, and exercise specialists. In two of the 14 sessions, the participants had

a chance to review their medications and to pose questions to a psychiatrist in a group setting. They were also encouraged to attend an optional weekly yoga class led by a certified yoga practitioner in addition to the regular sessions they attended at the same location.

Participant Recruitment

Following a needs assessment pilot study with 14 individuals with a mood disorder between November 2014 and October 2015 (Adams et al., 2015), our team designed a 14-week physical activity program called Jump Step. After receiving ethics approval from the UBC Behavioural Ethics Board, we recruited participants to take part in the program by posting posters in public places such as community centres and coffee shops and on social media (Facebook and Twitter accounts), sending a message to the list-serves of community mental health organizations such as the Mood Disorders Association of British Columbia (MDABC) and the Canadian Mental Health Association (CMHA), and by word of mouth when psychiatrists involved in the program introduced it to their clients. We encouraged potential participants to contact us using the email address or phone number on the poster and in the message. Participation was completely voluntary and the participants were reassured that their involvement would not affect the quality of services they would receive at the community organizations.

Initially, 38 participants who met the criteria expressed an interest in taking part in the program and were recruited. The eligibility criteria were: (1) age over 18 years; (2) a confirmed psychiatric diagnosis of MDD and/or BP II; (3) be community-dwelling and able to attend Group Medical Visits (GMVs); (4) be able to comply with scheduled visits, treatment plan, and other procedures; (5) be fluent in English; (6) be able to provide signed and dated written informed consent; and (7) be able to walk independently. We were primarily interested in evaluating the impact of exercise on individuals with depression, therefore we focused on a mixed sample of people with MDD and BP II. Considering the manic episodes of BP I, we excluded those participants. Potential participants who had mania or comorbid physical health conditions or relevant risk factors were excluded from the study. Because there was a limited number of spots in Jump Step, we required participants to have a confirmed diagnosis on a letter written by their psychiatrists. The participants were interviewed to get a baseline of their expectations prior to the commencement of the program. They were invited to be interviewed again immediately after the end of the 14-week program.

Data Collection

The Jump Step program ran from September 2015 to January 2016. Among the 38 individuals who were interviewed prior to the beginning of the program (T1), three dropped out before the start of the program for personal reasons and never attended any of the sessions. Among the remaining participants who were in the program, 23 participated in our post study assessments and were interviewed again to discuss any changes in their perspectives after completing the 14-week program (T2). These 23 participants included one who dropped out midway through the program to allow us to better understand the reasons for the withdrawal. For both T1 and T2 assessments, anthropometric measurements (height, weight, waist and hip circumferences) were first collected from each participant. Each participant then completed 11 questionnaires (e.g.,

Satisfaction with Life scale, UCLA Loneliness Scale, PHQ-9) before being interviewed. We opt to report non-interview findings elsewhere.

For both the pre-assessment (T1) and post-assessment (T2) interviews, we used a semi-structured interview guide designed by UBC investigators and the peer researchers who conducted the interviews for the needs assessment. The interview guide focused on the participants' history with physical activity, perceived facilitators and barriers to being physically active, coping strategies to mood disorders, and feedback and suggestions for the Jump Step program. A researcher conducted the interviews one-on-one, face-to-face in a private room at the research facility, i.e., Centre for Hip Health and Mobility (CHHM). There were two researchers (one with an MD and one with a research MA) from our team who conducted these one-on-one interviews. Each interview lasted between 60 and 120 minutes. Table 1 gives a snapshot of the questions in the interview guide. A semi-structured interview guide allowed us to probe for relevant topics brought up by the participants that were essential in evaluating the effectiveness of the program.

Data Analysis

The interviews were audio-recorded, transcribed verbatim by a professional transcription company, and the transcripts were uploaded onto the software NVivo 10™ for analysis. This analysis included all of the 38 pre-assessment and 23 post-assessment interview transcripts. It enabled us to understand the participants' perspectives from T1 to T2 and to gain a deeper understanding of the elements of the program that led to its success and the areas that needed to be improved. The two interviewers each generated a preliminary coding framework from reading the field notes and the transcripts. They then met twice to discuss and refine the

Table 1
Selected Questions in the Interview Guide

A: Questions regarding level of physical activity

Describe what a typical day looks like for you? Is physical activity a part of your typical day?

How much time per week are you in nature/the outdoors?

B: Questions regarding participants' coping strategies

What are you currently doing to deal with your mood disorder? Is physical activity a part of it?

What would you like to do to improve your mood but are not currently doing?

C: Questions regarding Jump Step Program

How did you think of the key features of the program in terms of time, location, duration, types of physical activity, etc.?

What are your suggestions for the future planning of a physical activity program for individuals with a mood disorder (e.g., advertising, contents)?

coding framework and came up with a final coding framework. The coding framework was passed along to the other researchers on the team for critique and feedback. After this process the coding framework was finalized and one of the interviewers then coded the entire dataset (both T1 and T2) and extracted the final findings from the coding. The two interviewers discussed the results that were then presented to a third researcher to provide feedback. When there was disagreement between the two interviewers, the third researcher weighed in to facilitate a consensus. We only included the themes where the participants had consensus. One of the interviewers then prepared the final results, which were once again reviewed by the entire research team for feedback and corrections. We used thematic analysis to guide the data analysis.

Gale et al. (2013) lays out the procedural steps in using the framework approach to analyze qualitative data in multidisciplinary health research. Framework analysis requires researchers to develop a detailed cross-tabulation of each theme with each participant. In this study, our goal was to understand the overall themes that emerged from our data and to use them to inform future program development, as opposed to conducting in-depth case studies of individual participants or themes. As a result, we followed steps 1 to 5 and then step 7 while skipping step 6 described in Gale and colleagues' (2013) work. These were the steps of a thematic analysis approach (step 6 being the extra step necessary to formulate a detailed matrix). We chose to reference their work because they offered very transparent procedures in conducting qualitative data analysis in public health research that other researchers could follow. The analysis process was iterative and the three researchers who coded and prepared the final findings acted as a mechanism to check one another's work to enhance the rigour of the data analysis process.

RESULTS

Participant Overview

Among the 38 pre-assessment interviewees who were either diagnosed with MDD or BP II, the gender distribution was 12 male and 26 female participants. The mean age of the group was 52.8 (SD = 11.6) ranging from 23 to 78. Among the 23 post-assessment interviewees, their diagnoses did not change. The gender distribution was 8 male and 15 female participants and the mean age was 52.5 (SD = 10.8) ranging from 31 to 78.

Data from both the pre-assessment and post-assessment interviews provided valuable feedback on the ideal components of a physical activity program like Jump Step for individuals with a mood disorder. Three main themes each with its sub-themes emerged from the data: having the right people, spatial and temporal resources, and sustainability of participation. Most of the following results are derived from the T2 interview data from the 23 participants who actually finished the program. Occasionally, we also include ideas articulated in the T1 interviews from the 38 participants that touch on essential aspects of the program. We use pseudonyms for all participants and quotes. Participants offered detailed accounts of their preferences for an exercise program and suggestions to improve our pilot program. For a summary of the results from both the pre- and post-assessment interviews, please see Table 2.

Having the Right People

Medical professionals. Participants generally perceived that all of the following professionals were important for a similar program to succeed, and in this order: fitness professional, yoga practitioner, psychiatrist,

Table 2
Considerations for a Physical Activity Program for Individuals with a Mood Disorder

Theme	Sub-Theme	Pre-Assessment T1	Post-Assessment T2
Having the right people	Medical professionals	Psychiatrists are important for the program	All personnel in our intervention are essential The importance of the personnel is in this order: fitness professional > yoga practitioner > psychiatrist > general practitioner (GP) Medical professionals instill confidence that the whole program is scientifically sound
	Exercise specialists	Exercise specialists are important for the program	Qualified professionals such as an exercise specialist should lead the sessions
Resources (spatial and temporal)	Location (spatial)	The location of our intervention is central and well-equipped	Ideal scenario is to have a program close to potential participants' homes such as in community centres or clinics
	Parking/transit (spatial)	Free parking or transit tickets eliminates the hassles of coming to the program	Free parking is essential for a program venue in the central business district Free bus tickets allow automobile owners to try taking transit
	Time/duration (temporal)	Weekends are not suitable for this program	Ideal time is early to mid-afternoon on a weekday Ideal duration is two hours each session
	Length of program (temporal)	A 14-week program seems to be the right length	The program can extend by a few more weeks to up to six months (24 weeks) to help create an exercise routine
	Time management (temporal)	N/A	During the psychiatrist sessions, a fair amount of time should be allocated to each participant
Sustainability of participation	Advertising	N/A	A mental health organization is most suitable to get people to learn about the program A champion (e.g., a psychiatrist) can very effectively encourage individuals with a mood disorder to sign up and remain in the program
	Topics/materials	N/A	Handouts are suitable as a reminder to topics discussed in class

Table 2, continued
Considerations for a Physical Activity Program for Individuals with a Mood Disorder

Theme	Sub-Theme	Pre-Assessment T1	Post-Assessment T2
	Physical activities	There should be a variety of exercise options that interest different participants	The exercise options should include running, soccer games, weight training, yoga, and outdoor/nature walks Qualified/certified exercise professionals can offer modifications of exercises for participants who need them
	Social connectedness	N/A	Participants appreciate the opportunities to build connections outside of class time with other individuals with a mood disorder Some suggestions include a shared email list of participants and a phone buddy system

Note. N/A = not available

and general practitioner (GP). The psychiatrist was considered important because he/she possessed medical knowledge and was in a position to offer scientific medical advice about mood disorders such as depression and bipolar II. The group medical visit (GMV) portions of the program was important to our participants because each person still had time to talk about their medications and/or progress with a psychiatrist, albeit in a group setting in the presence of other individuals with a mood disorder. Two out of the 14 sessions had allocated time to discuss medications. The psychiatrist instilled confidence that other parts of the program were scientifically sound to help the participants on the road to recovery and well-being.

Some participants were ambivalent about having a general practitioner (GP) to run the program. The psychiatrists were thought of as authoritative figures in working with individuals with a mood disorder. On the other hand, GPs were considered the “gatekeepers” for referral to a psychiatrist for specialized consultation. However, some participants did mention that so long as the GPs had the proper knowledge and skills to work with individuals with a mood disorder, they would be suitable candidates to run a similar program like Jump Step. For instance, one participant said:

It’s going to vary from doctor to doctor, but depending on their experience with mental health and patients—but it certainly would, you know, an ideal situation is having a psychiatrist, you know. Having a general practitioner with experience in that area would be helpful too. (Mary)

Exercise specialists. The certified fitness professionals were deemed important because they instructed safe and effective exercise techniques so that participants would not injure themselves while reaping the benefits of physical activity. Our program deployed a yoga practitioner who was trained and experienced in

working with people with post-traumatic stress disorder (PTSD), such as people who experienced abusive relationships, were recovering from injuries from accidents, or had experienced psychological distress. The participants almost unanimously touted her style and techniques as the reasons to enjoy yoga and to stick around with the weekly sessions. The participants felt that she understood them and knew the proper ways to encourage and motivate individuals with a mood disorder. For example:

I haven't met a lot—I mean, she's the first yoga instructor I've met. And what's really, really nice with her is she's therapeutic, you know, she doesn't see any other—doesn't do any other classes or see any other clients other than trauma, depression and anxiety. So there's—she has those skills. (John)

Oh, I think hugely, particularly with the background she has. Her background allows her to, you know, understand, have a great understanding of what many people have gone through. And do the poses and things and—to, you know, help release some of that trauma or worry. I certainly felt that helped me a lot. (Natalie)

Resources

Location. The location of our Jump Step program was perceived to be a great facility with top-notch equipment and friendly staff. Ease of access was an important factor for both the participants and for us when we chose a location to run this program collectively with the participants from the needs assessment pilot program before Jump Step. One participant stated,

[Our location] is a really great organization. It's a beautiful building. The people there are so kind and good. I think it's a great place. It's convenient to most people. You can get there by transit or any—and it stands for a really great cause. (Heather)

Despite positive feedback about the location, traffic to and from the facility, especially during rush hour, was a concern. This concern was especially pertinent to participants who lived outside the city limits and might need more than an hour to arrive by transit or by driving.

All of the T2 participants thought that a program closer to where they lived would be a significant advantage. Even before enrolling in Jump Step, participants mentioned that a program in their own neighbourhood would provide an incentive for them to attend the program. As this participant says,

Just move this building right to my neighbourhood. ... Put everything even—and, you know, just put it really close. (Sarah)

Parking/transit. During the program, we arranged free parking at the partner facility or free transit tickets for the participants. They found that free parking eliminated the hassles of finding an expensive parking space near the facility, which was located in a central business district. For some participants who were accustomed to driving, the free bus tickets that we provided *occasionally* motivated them to take transit to the sessions, which was a learning experience of various transit routes and types of transit options in and of itself.

Time/duration. With a few exceptions, participants from both T1 and T2 interviews thought that two hours for each session in the afternoon on a weekday was the most suitable arrangement for the program in terms of time and duration. The reason given was that many individuals with a mood disorder did not work at all or did not work full-time, subsequently they could participate in the program at the stated time. Even for those participants who were still working either full-time or part-time, they thought employers would allow them to take a few hours' time off work to attend the program. This participant summed it up this way:

It didn't seem to bother anybody. Most people weren't working or working part time or whatever. ... Even if you had to take three hours off work to go for that—I'm sure most companies would let you make the arrangement if you were working full time. (Paul)

With regard to an afternoon time spot, it tended to be a personal preference but the consensus among the participants was that a session in the afternoon could accommodate those individuals with more serious symptoms who had a difficult time getting up early in the morning. This timing would also facilitate participation from those who had childcare responsibilities that rendered their mornings unavailable. This comment is best articulated in this quote:

I think afternoon is good. ... Because I think people who are not doing well don't get up early and get tired. So I think—[laughs] that time is actually a good time for the most part. (Jonathan)

Extend the Length of the Program

In our post-assessment interviews, we asked all 23 participants for their opinions about the optimum length of the intervention to ensure sustainability in their participation in physical activity after the program had ended. The consensus among the participants was that the current 14-week model was too short to build an exercise routine to continue on their own afterwards. Some suggested that the program should last longer by a few more weeks to up to six months in length (24 weeks) to help create an exercise routine:

You know, there's sort of—it's split into, you know, you can continue after three months. Maybe there's like a week hiatus and for those that are keen, they can continue on; for those that feel they're where they need to be, they can stop. (Natalie)

Sustainability of participation. In addition to personnel and resources, participants highlighted important elements that encouraged them to remain in the program, including the advertising, and the content and delivery of the program.

Best methods to advertise the program. The vast majority of participants learned about Jump Step through the Mood Disorder Association of British Columbia (MDABC) and through our collaborating psychiatrist. It is clear that a mental health organization and a champion for the program (the collaborating psychiatrist in this case) were effective means to involve participants. In the pre- and post-assessment interviews, participants agreed that the best way to advertise the program was through a psychiatrist in an organization/clinic that they visited. For example:

Well, I think if the purpose is for mental health, then working with groups like the Mood Disorder Association is an excellent way to do it because they disseminate information and there's such a huge volume of patients that belong. (Susan)

Other venues that might bring the program to the attention of individuals with a mood disorder are psychologists' offices and public places with a large number of visitors:

Certainly by joining forces with MDA, I'm sure that's one way. I'm sure there's other ways, connections that happen with MDA and places like that and psychiatrists' offices or psychologists' offices, recreation centres. (Eddie)

Topics/Materials

For the most part, participants could not recall the topics or the handouts after the Jump Step program. However, some of them still preferred to have handouts so that they could refer to them later if the need arose. When asked what topics they would most want to learn about, none of the T1 or T2 interviewees provided concrete topics. For example:

What I was mentioning to [the staff] was that with some of the exercises it would have been helpful to have, like, a summary or a handout afterwards. 'Cause there was some of them that I would have done, except by the time we get back at the end of the hour I've forgotten exactly what they were. So that would have been helpful. (Kathy)

Ensure physical activities cater to different physical abilities. One of the major concerns among our participants was that our physical exercise program would be too rigorous or too monotonous and that participants would lose interest soon after starting the program. To lessen this barrier, a consensus among them was to build in a variety of exercise options (e.g., running, soccer games, weight training) into the program so that people could maintain an interest as the program progressed. Another suggestion was to ensure there were qualified professionals such as an exercise specialist leading the sessions. These professionals are certified and possess the ability to properly monitor participants' exercise techniques and progress. They are also knowledgeable about designing exercise programs that have a multitude of components to stimulate participants' interest levels. The following participant puts it well:

I think it would not hurt to have a kinesiologist or physio-type people, somebody involved with the group, so that it can help people that are struggling with some physical things, right. 'Cause if you can get me in a position where I'm not suffering, I'm not in as much pain, I don't get tired all the time, I can more readily do exercise, you know what I mean? So there's a balance, right? (Patrick)

Create opportunities to connect with other participants. We had shared participants' email addresses from whom we received consent. The participants were encouraged to meet outside the GMVs and many paired up and signed up for other classes at the gym where the program occurred. Some of the participants also went for a coffee or a friendly chat after their sessions. Despite these, an aspect that our participants felt was lacking in Jump Step was that there were limited opportunities to build social connections with the other participants in the program. Oftentimes participants only saw one another during the sessions with no contact outside of class time. Consequently, the participants recommended that the program organizers create more opportunities for social connectedness among the participants such as making better use of the email list and devising a phone buddy system. For instance:

Starting to get people communicating, I think would be really helpful. I think that would be a start. I would say make people phone buddies and switch them around, right. This week you two are going to check in and next week it's different people, so that people are getting to know each other a bit more. (Kathy)

Divergent themes. There were three themes raised by the participants where there was disagreement. First, a few participants mentioned the use of a physiotherapist in the program to better meet the needs of those who needed modifications in the exercises, while most other participants thought hiring exercise specialists (i.e., personal trainers or sports coaches) as it happened would be appropriate. We decided to exclude this suggestion because we did not involve a physiotherapist in Jump Step as we had to hire personnel at the non-profit organization to run the exercise sessions and there was no physiotherapist on staff. This suggestion

was based on the participants' ideal, not actual experience. Second, while the participants agreed that handouts for the topics discussed in class should be provided, they could not agree on the topics for additional handouts. Some recommended information for other local groups to instigate social connectedness, while others requested details for other diseases or conditions. As such, we refrain from recommending additional topics for the printouts. Third, participants did not have consensus on the best channels to advertise Jump Step other than via a mental health organization and psychiatrists. Some believed that media outlets would reach potential clients, and others preferred to learn about the program from posters in various community locales. We believe that spreading the word through a local mental health agency would yield the best turnout.

DISCUSSION

The majority of participants mentioned that an exercise program for individuals with a mood disorder close to where they resided would effectively enhance the likelihood of participation. In our study, location was not a deterrent even for participants who lived afar because they felt "accountable to the research team" and that they "do not want to upset the researchers." However, they said that if the program were to be implemented in community settings such as a community centre or a local clinic, they were more likely to adhere to the program. Also, a unique feature we offered in the program was free parking at the facility or bus tickets to and from the venue. This was an essential motivator for the participants to attend our sessions and eliminated the hassles of finding expensive parking on busy streets in the downtown area. We suggest facilities that offer similar programs to consider offering free parking or subsidized transit arrangements because of the big impact this had on our participants.

Regarding temporal resources, the majority of the interviewees perceived that 13–14 weeks was the minimum length to form a habit to engage in regular exercise. The program could have lasted up to six months to allow them to adhere to an exercise routine even after the program had concluded. This has financial implications because as the program lasts longer, costs to pay the personnel involved (e.g., exercise specialists, psychiatrists, recreation facility staff) will increase. We suggest that the actual program should be between 13 and 24 weeks in length. In addition, the ideal timing of the program is early to mid-afternoon on a weekday and each session should last two hours. Typically, the participants are adults who have some conflicting work or homecare responsibilities. Early to mid-afternoon is usually the window of free time in their schedules. In addition, the mood disorders might be affecting their sleep schedule and many participants voiced the concern that their low energy level in late afternoon or in the evening prevented participation in any physical activity. As such, we suggest that the program be run anytime between 10am and 3pm during a weekday to accommodate most people.

With respect to the content or curriculum for an ideal program, a recent study with a similar population indicated that exercise preferences were for a walking program with moderate intensity in nature or the outdoors, likely with the aid of pedometers (Subramaniapillai et al., 2016). The same participants indicated that strength and resistance training should also be a part of their exercise program. These results largely match the preferences for the contents of Jump Step. As mentioned, our participants favoured light-to-moderate aerobic and weight training exercises as well as yoga and stretching. Our participants also indicated that they wanted some sessions to take them to the outdoors or in nature where they feel "calm, at ease" and to "get away from it all." This is consistent with research that indicates that green (e.g., trees, parks, forests)

and blue (e.g., waterfront, ponds, lakes) spaces can be “therapeutic landscapes” that elicit emotional benefits (Finlay, Franke, McKay, & Sims-Gould, 2015). Physical activity in the outdoors further offers affective and psychological advantages to individuals with depression (Fruhauf et al., 2016). We contend that it is advantageous to incorporate nature or the outdoors into some of the sessions.

Based on this study, an ideal program should be run by qualified professionals in an easily accessible community setting from early to mid-afternoon for two hours each session and last from 13 to 24 weeks. It should offer a variety of exercise options and include opportunities to build social connectedness among the participants. The support of a reputable mental health organization to facilitate the advertising of the program is essential.

Limitations

A limitation of our study is that there were five participants who dropped out of the program between T1 and T2 and we were only able to interview one of them post-assessment. The reasons for this participant’s withdrawal were circumstantial because s/he became busy with work and home life. The program itself was not a cause of the withdrawal. We believe that the low number of dropouts in the intervention and the repeated analysis meetings among the research team ensure that our results have captured the consensus among the participants. Studies in the future ought to find better ways to encourage dropouts to provide feedback about the reasons they withdrew from the program and suggest areas for improvement while ensuring their anonymity.

CONCLUSION

In recent years, physical activity has become a more accepted form of “prescription” for individuals with mood disorders in addition to medications and various forms of therapy. The benefits of physical activity for these individuals are also tested and shown in an increasing number of studies. However, knowing the benefits of exercise does not always lead to higher participation and maintenance rates among these individuals. In this article, we synthesized the perspectives of participants who went through our physical activity program called Jump Step designed specifically for individuals with a mood disorder, MDD or BP II in this case, to come up with a list of recommendations for an ideal exercise program. What we hope to achieve here is to bridge the gap between knowledge and action. In other words, the results of our study will help us modify Jump Step and be a reference point for other researchers or clinicians when they design a physical activity program for individuals with mood disorders. Our recommendations are entirely data-driven and based on the preferences of our participants so that they will likely be relevant to the others who have been diagnosed with a mood disorder and who may share the same challenges when engaging in physical activity. It is our hope that the recommendations will help those with a mood disorder to participate in and to maintain the level of physical activity in a regular, structured program so that they can truly reap the benefits of exercise as a “medicine.”

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