UBC Social Ecological Economic Development Studies (SEEDS) Sustainability Program

Student Research Report

Evaluating the Move More, Learn More (MMLM) Program

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Executive Summary

The purpose of this study was to address the barriers that Asian female students experience while participating in physical activity (PA). Literature around this topic highlights the specific links between Asians - South Asian and East Asians, who show the lowest levels of PA among all other gender and ethnic groups (Yan & Cardinal, 2013). To illustrate, a study showed that South Asian's are less likely to engage in PA, and simultaneously consume higher fat diets due to the lack of health education (Sriskantharajah & Kai, 2007; Vrazel et al., 2008). Additionally, our group partnered with the *Move, More, Learn More* (MMLM) program which is a 9-week program focused to teach participants about PA and health, through weekly classes (UBC, 2019). These classes consist of education classes and movement activities that are designed for Asian females who are interested to learn how to engage in healthy lifestyle choices and approach PA from a holistic perspective (UBC, 2019). Although this program is an excellent solution to the issue at hand, there are currently only 11 participants in the program (UBC, 2019). Therefore, to understand how this program could progress we considered possible barriers and issues highlighted in literature that may discourage Asian females from participating in MMLM. Our study surveyed a total of 59 Asian female individuals from UBC. We asked them a series of questions pertaining to their experiences, motivations, and perceptions of PA to gain a greater understanding of the underlying barriers and issues that continue to persist around this problem. Through our analysis, we found 3 significant points that contributed to PA rates within females - their cultural experiences, barriers to physical activities (PAs), and perceptions of PA. However, with the given data, we also highlighted several limitations that arose from this study. Limitations included time constraints, biased responses due to lack of diversity amongst types of asian ethnic groups that we surveyed, and incorrect survey techniques which yielded unclear responses.

Nonetheless, we conclude our paper by providing tangible solutions that can be applied both as short- and long-term solutions towards the Move, More, Learn, More program and general UBC health promotion programs.

Introduction

The positive effects of PA for a person's mental, physical, and emotional well-being are well evidenced and supported by research (Bailey, 2006; Fox, 1999; Taylor, Sallis, & Needle, 1985). Despite this, women and especially Asian women are reported to have one of the lowest PA participation rates compared to other sexes and ethnic groups (Seo, Torabi, Jiang, Fernandez-Rojas, & Park, 2009; Yan & Cardinal, 2013; Yoh, Yang, & Gordon, 2008). Understanding this lack of participation, the *Move More, Learn More* (MMLM) program was piloted by the Office of Physical Activity to target all self-identified women and focuses on catering the program to the population of Asian women students on the Vancouver campus at the University of British Columbia (UBC) (UBC, 2019).

Despite a large population of women (56%) on UBC campus, and in particular, Asian women students, the enrolment rates for MMLM is often not at full capacity (University of British Columbia Planning & Institutional Research [UBC PAIR], 2019). Therefore, the purpose of this project was to create a literature review and survey to further understand the exposure, perceptions, knowledge, and experiences Asian women students have of PA and the MMLM program. Furthermore, our objectives of the project included evaluating and assessing the content and communications of the current program to make recommendations for MMLM to further improve the accessibility and content of the program to their target audience, Asian women students (UBC SEEDS Sustainability Program, 2019). To further understand the target audience, an online survey was administered with questions pertaining to potential barriers to participating in PA, past and

current PA habits, knowledge of physical literacy, and exposure to the MMLM program. From findings extracted from the survey, important information and understanding of the Asian women on campus will be known and recommendations can be provided for future implementations of the MMLM program.

This research project was conducted and carried out in partnership with UBC Recreation (UBC REC) and UBC SEEDS Sustainability Program. From UBC REC, the Program Manager Alyssa Reyes and Program Coordinator Emily Jarvis provided valuable knowledge about the current MMLM program, knowledge gaps that needed to be addressed in our survey and literature review, and invaluable and useful feedback and guidance for the survey, project, and presentation. From the UBC SEEDS Sustainability Program, the Program Coordinator Jonathan Kew provided great resources to previous research and valuable knowledge, guidance, and feedback for the literature review, survey and project. Furthermore, the representatives further supported the project by guiding and assisting the process of creating, distributing, analyzing, and providing an incentive for the survey.

Background Information/Literature Review

In 2018, the Office of Physical Activity piloted the very first MMLM program on the UBC Vancouver campus (UBC SEEDS Sustainability Program, 2019). The MMLM program was created in response to student data on the UBC Undergraduate Experience Survey which found a need for PA opportunities for Asian women on campus (UBC SEEDS Sustainability Program, 2019). MMLM is a 9-week program that is held twice a week and aims to improve women's health literacy (UBC, 2019). The main focus of MMLM is to provide women an opportunity to experience new and adaptable exercises, encourage health literacy understanding by guiding and

teaching women who are just beginning their health and fitness journey, and promote long-term PA involvement (UBC, 2019).

Providing a holistic approach to PAs for Asian female students, MMLM consists of two sessions per week, one session would focus on interactive health education and the other would focus on introducing fun and innovative PAs (UBC, 2019). In the interactive health education sessions, a variety of topics regarding health would be covered based on the participants' interests. During the PA sessions, participants have the opportunity to explore and participate in a variety of modifiable PAs and exercises. This SEEDS project was proposed to evaluate MMLM's content and communications. As MMLM was first established in 2018 to provide Asian woman PA opportunities, the program coordinators wanted to know how to market MMLM to further meet their target audience, assess students' perceptions of MMLM, and the general accessibility of MMLM (UBC SEEDS Sustainability Program, 2019). From the project, coordinators hope to receive implementable, suitable, and reliable recommendations for MMLM based on the data gathered from the survey (UBC SEEDS Sustainability Program, 2019).

Previous literature analyzing intercultural PA programs that evaluate best practices are scarce (Frisby, 2011). Frisby (2011) believes this scarcity could be due to the complexity of multiculturalism and social inclusion, which are both issues experienced differently by different ethnic groups and affected by varying factors (e.g., culture, gender, ethnicity, etc.). However, due to this scarcity of literature, there exists knowledge gaps and an unclear criterion for best practices and success metrics for intercultural physical activity programs. Furthermore, according to Frisby (2011), there does not yet exist 'best practices' and instead there are 'promising practices' due to the lack of research. For example, some promising practices Frisby (2011) mentioned include: (1) having culturally diverse staff, (2) leadership training targeting under-represented groups, (3)

offering regular workshops about antiracism, and (4) encouraging members of the community to be vigilant and research about issues facing their community.

To bridge the potential lack of inclusion created by a difference in culture, Frisby (2011) and Sandercock (2004) recommended multiple outreach and inclusion strategies to create programs that are interculturally aware. For example, promoting and planning programs to have a broader social ecological framework and enhancing community partnership to facilitate cross-cultural connections (Frisby, 2011; Sandercock, 2004). To provide a broader social ecological framework means to focus on the participants' intrapersonal relationships, and community and organizational arrangements (Frisby, 2011, Sandercock, 2004). For example, having group rates could be more effective in enticing new members and may foster participants' intrapersonal relationships. To further improve community partnerships needed to facilitate cross-cultural connections, it may mean promoting the program to members of the targeted population using various forms of marketing tools (Bayne & Cianfrone, 2013; Frisby, 2011). For example, promoting MMLM on Imagine Day at UBC, marketing MMLM in the dorms and residences, and promoting MMLM on various forms of social media.

Multiple factors that contribute to the lack of engagement in PAs among Asian women in universities. First, the perception of PA for many Asian women is quite different from western culture. In a study by Im and Choe (2004), breathing, sleeping, digesting, and brain activities were considered forms of PAs for some Asian women living in Asia. Moreover, Yan and Cardinal (2013), studied the perceptions of PA participation of Chinese female graduate students in the United State. In China, the "paper girl" image with a skinny body shape and light skin tone was favored (Yan & Cardinal, 2013). Thus, women in China worried that they would gain muscles if they exercise (Yan & Cardinal, 2013). However, in Western culture, many women preferred

having a healthy-looking body with muscles and tone (Yan & Cardinal, 2013). This exemplifies the differences in perception of PA and the perception of femininity between Asian and western culture.

The most significant barrier that hinders the participation of PA among Asian women in university are the lack of time to exercise. Oftentimes with an inflexible schedule and limited spare time, university students rarely have an opportunity to participate in PAs (Yan & Cardinal, 2013). According to Yan and Cardinal (2013), participants would rather rest than take part in PAs. Secondly, a lack of self-efficacy was another compelling barrier discouraging Asian women from engaging in PA. Wherein Asian women felt embarrassed when they could not perform certain skills or proper techniques, thus, discouraging them from participating in PAs and made partaking in PAs less enjoyable (Ransdell, Detling, Hildebrand, & Lau, 2004; Suminski, Petosa, Utter, & Zhang, 2002; Yan & Cardinal, 2013).

Findings from Yan and Cardinal (2013) indicate that observing others being physically active encourages one to be more physically active. For example, when students see their favourite celebrities engaging in exercise on social media or even seeing other students dressed athletically, one would be encouraged to become more physically active (Yan & Cardinal, 2013). Findings from Yan and Cardinal (2013) also saw the popularization of athletic-type attire by social media images and influencers, thus, people began wearing athletic clothing to a variety of settings (Yan & Cardinal, 2013). Unknowingly, these people are also influencing others to become more physically active. Evidently, social media is an effective and influential tool with the ability to influence others to be more physically active (Bayne & Cianfrone, 2013). This influence could be used by MMLM as a form of outreach strategy to reach their target population.

Methodology

Description of Methods Used

For this study, an online survey was distributed to various UBC clubs and advertised on multiple social media platforms targeting the Asian women student population. All responses collected from participants were voluntary and participants understood that all personal information given will be kept confidential. In total 102 responses were collected, however, just 59 responses were valid and met the criteria (i.e., Asian women students). Hosted on Qualtrics, the survey took approximately 7 to 10 minutes to complete and consisted of multiple-choice, rating scale, Likert scale, and open-ended questions. Participants completed the survey through Qualtrics, and the responses provided quantitative and qualitative research data to the project (i.e., a mixed methods approach was used). The survey consisted of 2 parts and each part answered a particular knowledge gap: (1) to examine Asian female experiences in PA and, (2) to evaluate the existing MMLM program. The survey consisted of 27 questions in total and included themes about demographics, perceptions of PA, cultural influences of PA, barriers, awareness of the MMLM program, and suggestions on how MMLM could modify/improve.

Rationale for Methods Used

Prior to designing the survey questions, a meeting with the SEEDS project partners established goals and expectations. From the meeting, the SEEDS project partners advised researchers to focus on finding the target populations' perceptions and barriers to PA and changes/improvements possible for the MMLM program. To address these focuses, researchers divided the survey into 2 sections and designed questions to examine the above focuses.

Check and Schutt (2012), defines surveys as information collected from a sample of individuals. For this project, a mixed methods strategy was used when creating the survey.

According to Ponto (2015), surveys are versatile and allows the use of a variety of methods to collect data, utilize various instrumentations, and recruit participants (Ponto, 2015). Furthermore, surveys can help researchers describe and explore human behaviours (Singleton & Straits, 2009). Additionally, according to Ponto (2015), surveys can collect a sample that is representative of an entire population if there is a large enough random sample.

Project Outcomes/Key Findings/Discussions

In total, 59 valid responses from self-identified female Asian students were received. In this section, we will define the demographic of our participants and highlight key findings that can be concluded from our survey respondents affecting PA. Specifically, the 3 identified key findings were: (1) Cultural Influences, (2) Barriers, and (3) Perception.

Demographic of Participants

Out of 59 responses, 88.14% students were domestic UBC students while 10.17% were international students (Table 2)**.** Ethnically, 83.95% identified as East Asian and 12.35% identified as South East Asians (Table 1). The remaining respondents identified as West Asian or other. Participant data was also collected from the following faculties on UBC campus - Kinesiology (35.59%), Arts (23.73%), Other ***(20.34%), Land and Food Systems (8.47%), Science (6.78%), and Applied Science (3.39%) (Table 3). Participants PA engagement measurements showed that 16.95% of participants are exercising between 30 - 60 minutes per week after entering university (Figure 1). While 18.64% of participants are meeting the Canadian Physical Activity Guidelines by exercising 150 minutes or more a week after entering university (Figure 1). In contrast, 38.98% of participants were participating in 150 minutes or more of PA per week prior to university - a greater percentage meeting the weekly requirements (Figure 1).

(1) Cultural Influence on Physical Activity (PA)

To identify possible cultural pressures on PA engagement we asked participants to determine if their family holds expectations for them to look thin, and whether or not this affect their motivation to be physically active (Figure 5). Participants could answer with one of three options. Either their parents do have an expectation, but it does not affect them, their parents do not have an expectation and it does not affect them or their parents do have an expectation and it does affect them (Figure 5**).** Our results showed a total of 65% of the participants are not affected by their families' body expectations (30.51% family had expectations, 38.98% family did not have expectations), while 27.1% of them claimed that families' expectations on body image motivates them to be physically active (Figure 5).

(2) Barriers and Challenges to Physical Activity (PA) Engagement

Participants were asked to determine what the main barriers were that stopped them from being physically active (Figure 2). In response, participants highlighted 2 main barriers that discouraged them to participate in PA. 34% of women stated that lack of time was a barrier that stops them from being physically active and 21% of participants stated that feeling comfortable with exercising with other patrons was another. Within 21% of the responses of not feeling comfortable with exercising with other patrons, 74.14% of these participants stated that they are not comfortable asking an instructor for help. Likewise, 67.24% of them stated that they prefer training in private space, away from others.

(3) Perception of Physical Activity (PA)

We asked participants to choose which activities they believed were considered to be PA. 56.12% stated "A workout in the gym/ Playing sports" was their main perception of PA. While 33.67% chose "Walking", 6.12% chose "Daily activities", "3.06% "Sleeping and Breathing, and

"1.02% was other. Participants were also asked to identify what motivates them to engage in PA. The two main motivators for engaging in PA were "Body Composition" (27.62%), and "Health Reasons" (25.97%) (see Figure 7).

Discussion

As previously defined, beauty and body image differ significantly across cultures and in-turn affects an individual's willingness to participate in PA (Yan & Cardinal, 2013). For example, Chinese see a "paper thin" body as beautiful, while South Asians place beauty expectations of body shape/weight as their physical appearance defines their aptness for marriage - an important aspect of South Asian culture (Yan & Cardinal, 2013; Bhatti, 2018). However, since our findings show that only 27.1% were affected by the cultural pressures to look thin, this suggests that cultural influences within UBC Asian women students are not as dominant as believed to affect PA participation.

Participants highlighted that a lack of time was the biggest barrier to physical activity. As we previously saw, the statistics for PA participation for students before and after entering university decreased by 20%. Therefore, this finding suggests that Asian females attending university may have a mindset that values academics over physical (Chen, 1999; Yan & Cardinal, 2012). Oftentimes in Asian cultures such as Korea and India, if women are not in school, then they must attend to their household responsibilities. Cultural factors as such must therefore be considered when looking at the value of physical activity given time in a day (Im & Choe, 2004). Likewise, our findings suggest that participants do not feel comfortable asking instructors for help and prefer to train separately from other patrons. This suggests that individuals who are beginning to exercise may prefer personal training options for increasing their physical literacy (McClaran, 2003). Studies have shown that personal training can be an effective method to change attitudes towards physical activity, and therefore increase participation (McClaran, 2003).

Findings on participants perception of physical activity were very much in line aligns with research. As participants stated that "A workout in the gym/playing drop in sports" was considered physical activity, this suggests a lack of understanding for a holistic perspective of what physical activity includes (Yan & Cardinal, 2012). For the percentage of individuals who do participate, they state that their main motivator was "Body Composition". This highlights the links back to the ideals of cultural impacts where the expectation to be thin may contribute to exercise motivations, but also suggests that physical activity is not seen for promoting a holistic lifestyle approach (Bhatti, 2018).

Recommendations

(1) Marketing of the Program

Based on our findings, over 80% of the respondents have never heard about the MMLM program prior to the survey (Figure 8), and over 45% of the respondents agree that there is a need to increase students' awareness of the program (Figure 9). This suggests that there is a gap between the current marketing of MMLM and students' awareness on the program. Therefore, there is a need for stronger marketing of MMLM. Currently, advertisements and promotions of the program seem to be limited to the UBC REC website and Facebook posts, as well as the posters distributed through student housing groups and orientations for first year students.

With these strategies in mind, we recommend UBC REC to consider using other social media tools that are more relevant to Asian female students. Promotional materials can be marketed on undergraduate pages on Asian social media platforms (e.g., WeChat, Weibo, etc.), campus wide websites (e.g., UBC Vantage College, UBC Undergraduate Admissions Office, etc.) and Asian student clubs (e.g., Chinese Varsity Club, Thai Aiyara Club, Seri Malaysia Club, etc.) where delivering the advertisement to the target population can be more effective.

Findings from Bayne and Cianfrone (2013) suggests that providing on-campus recreation to students through multiple modes of social media platforms is necessary for disseminating and promoting recreational programs. Moreover, in addition to using traditional posters, including a promotional video is recommended as it could be more eye-catching, enticing, and engaging. The use of Asian women imagery in promotional material is also encouraged, as these images can act as a role model for other potential participants of the program (Yan & Cardinal, 2013).

(2) Content Change in MMLM

Results of the survey suggests that more than 1/3 of our respondents would like to see dance being a part of the program (Figure 11). This shows that the current content of the program may not fully fulfill the expectations of current participants and other potential participants from the target population. Other comments also suggested having more workshops teaching the necessary techniques/methods needed to be physically active throughout the lifespan (Figure 10). With these responses in mind, we recommend MMLM to place more emphasis and time teaching fundamental weight-lifting techniques and workout plans during the program. Furthermore, an introduction to North American sports (e.g., hockey, lacrosse, dodgeball, etc.) can also be provided to participants. Indeed, research suggests that a lack of skill and knowledge could trigger feelings of embarrassment when engaging in sports and PAs (Ransdell et al., 2004; Yan & Cardinal, 2013). According to Ransdell et al. (2004), Chinese female students may feel embarrassed when they perceive there to be a skill gap between themselves and their peers (Ransdell et al., 2004). Through attending the PA sessions in MMLM, participants can be exposed to new sports and exercise technique, thus increasing their confidence in engaging in PAs. Furthermore, during PAs it could be easier for Asian students to socialize and mingle with other students, thus fostering an intercultural social environment.

(3) Creating A Welcoming & Safe Space for Physical Activity (PA) for Women

More than half of our respondents (66%) would like to have more private space to work out on campus (Figure 4). Based on this finding, we would recommend UBC REC to perhaps limit the number of patrons in the gyms and provide more flexible women's only fitness hours. Moreover, to utilize the already existing resources, we recommend UBC REC to open up the personal training room in the ARC gym for female students to work out when there are no personal training sessions. These measures can increase the wanted private space in the fitness facilities, thus improving female students' comfortability to exercise in a public space.

More than 71% of our respondents said they do not feel comfortable asking staff for help when they do not know how to use a piece of equipment in the gym (Figure 3). To address this, we recommend UBC REC allocating more floor staff in the fitness center that are women. As their presence could improve students' comfortability exercising in a public space as it would be easier for them to seek help from a staff of the same gender for assistance and exercise techniques (Yan & Cardinal, 2013; Yoh et al., 2008). Furthermore, we recommend staff in the fitness centers to wear an "Ask Me" badge as part of their uniform to create a more welcoming space for students who are new to the gym and have questions (e.g., weight-lifting equipment and techniques or cardiovascular exercise training). In particular, this will encourage and aid Asian women students to seek help from staff without feeling embarrassed. This would be in response to findings by Suminski et al. (2002) and Yan and Cardinal (2013) which recognized the importance of self-efficacy for Asian women.

Limitations

During the research process, we encountered a number of challenges and limitations that posed as a barrier to conducting a thorough evaluation. A major limitation were time constraints

as the project was confined within 3-month time frame. Despite exceeding the target of 50 survey participants, extending the recruitment period beyond 2-weeks would allow for a larger sample size that would help validate the internal and external validity of the results. Consequently, attempts and efforts to reach out to the target population by contacting executives of Asian student clubs became futile because many of the clubs were not able to respond to the survey invitations within the 2-week recruitment period. In addition, time constraints prevented us from being able to conduct follow-up interviews with the survey participants to gain greater to the results. As a result, a dominant number of survey respondents were recruited from posting on our social media accounts or through word of mouth by contacting friends. Unfortunately, this led to a strong bias towards the demographic of people within our social circles which explains the sample bias towards East-Asian domestic students from Kinesiology faculty. Therefore, the lack of diversity in the sample would mean the results are not representative of the entire Asian female student population on campus.

Another limitation identified is the overall formatting of the question in our survey. By allowing participants to “choose more than one option”, created great ambiguity in the responses and difficulties when extracting and analyzing the data. Therefore, future studies should restrict participants to only one response by instructing the participants to “choose the best option."

Conclusion

Despite the limitations and challenges, the findings from the study were supported by the existing literature and helped fill the current gap in knowledge. From the results, Asian female students were not affected by Asian culture pressures to look thin. Despite being immune to Asian cultural expectations, the “lack of time” was identified to be a major barrier for Asian female students to engage in physical activity. The prioritization of academics and perpetuation that

domestics' chores being a females' responsibility all act as confounding factors to why "lack of time" is a commonly identified barrier. Furthermore, a large number of respondents not being comfortable asking a gym attendant for help suggests a demand for more accessible personal training options.

Consistent with previous SEEDS projects' evaluation on the MMLM program, better marketing efforts is still required to increase awareness of the program and attract a greater number of participants. An update on the program content should be considered as many of the responses favoured more education on weightlifting technique and introduction to North American sport. Finally, further investigation is needed to determine whether providing private female training spaces and greater number of female gym attendants would effectively ease Asian females' current discomfort with using the gym spaces available at the university. Hopefully, the implementation of these recommendations will offer Asian female students an equal opportunity to lead a healthy and physically active life during and beyond their years at this university.

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Appendix

Table 1

Participants' response to "Which of the following best describes your ethnicity?".

Ethnicity	Count	%
East Asian	55	89%
South East Asian	6	10%
South Asian	0	0%
West Asian	1	2%
Other	0	0%
Total (N = 62)		

Table 2

Participants' response to – "Are you a domestic student, international student or staff/faculty member at UBC?"

Status	Count	%
Domestic student	52	88%
International	6	10%
Staff/Faculty Member	1	2%
Total (N = 59)		

Table 3

Participants' response to "What faculty are you in?"

Faculty	Count	%
Applied Science	2	3%
Arts	14	24%
Commerce	1	2%
Kinesiology	21	36%
Land and Food Systems	5	8%
Science	4	7%
Other	12	20%
Total (N = 59)		

Figure 1. Amount of exercise participants engaged in per week before and after entering university.

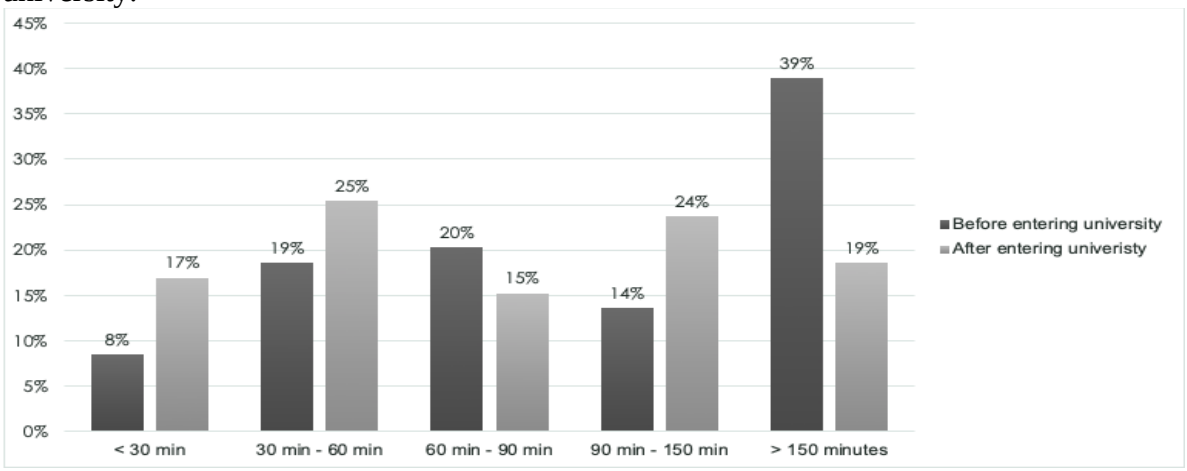

Figure 2. Participants' identified barriers that prevent them from being physically active.

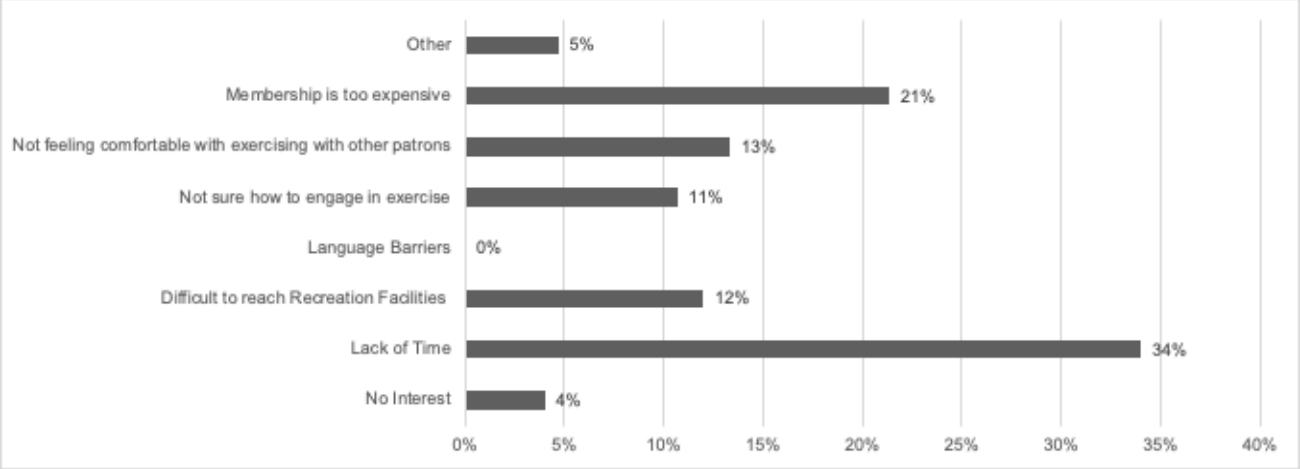

Figure 3. Participants' response to *"Would you feel comfortable asking staff at the gym to help you with learning how to use the equipment?"*.

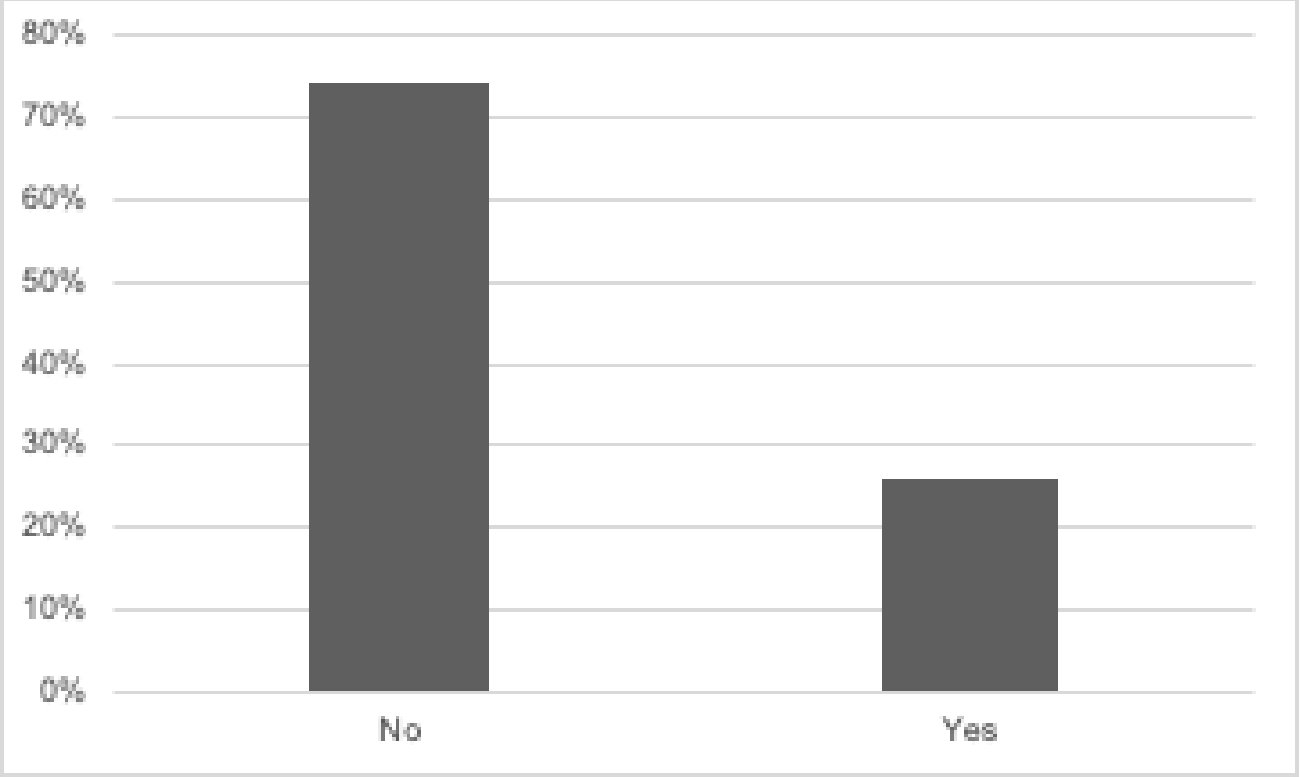

Figure 4. Participants' response to *"What would encourage you to be more physically active?"*.

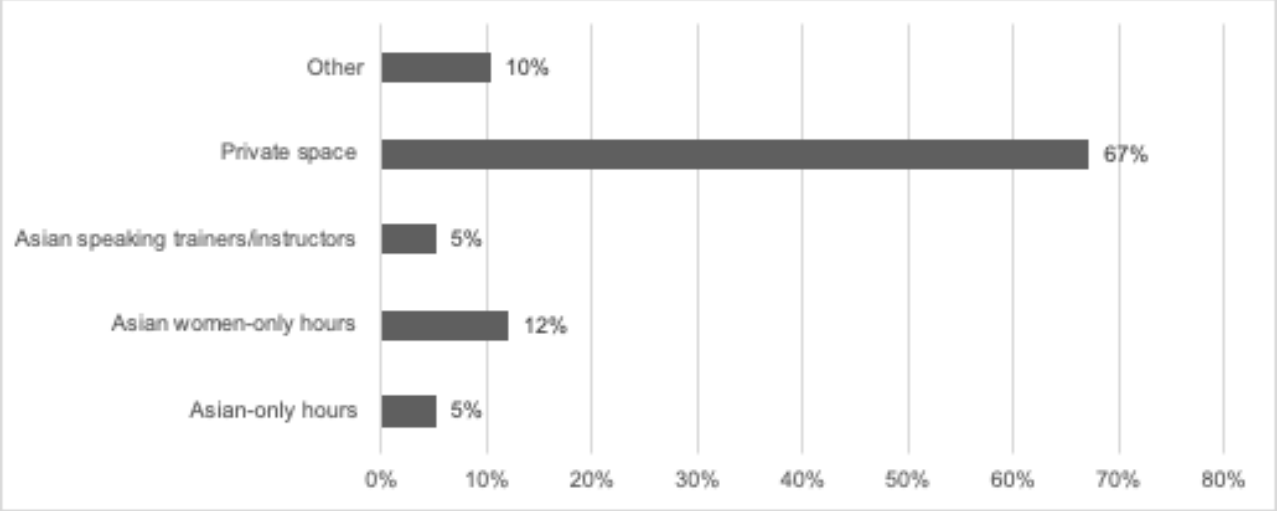

Figure 5. Participants' response to *"Does your family expect you to look thin? Does this affect your motivation to be physically active?"*.

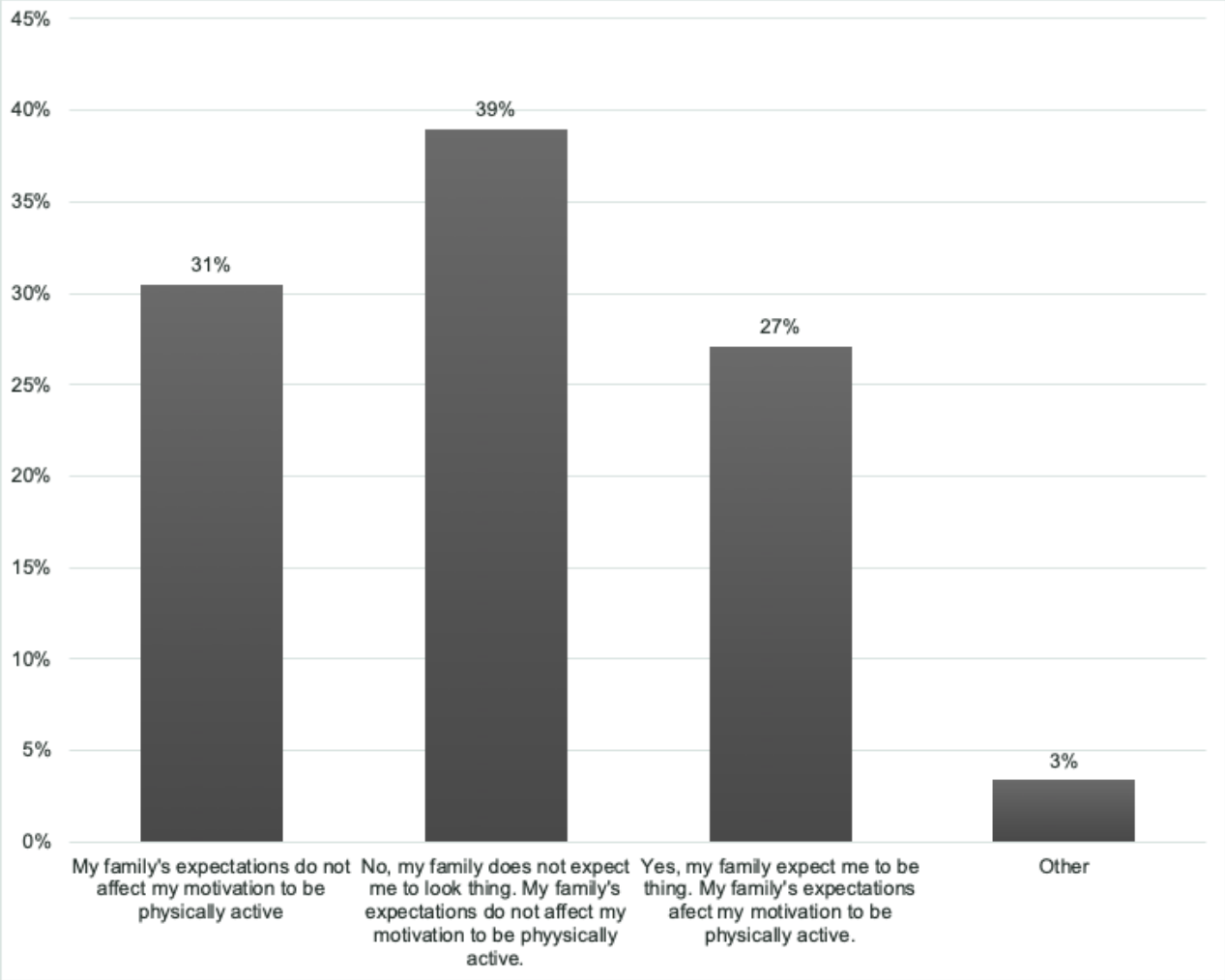

Figure 6. Participants' response to *"What does engaging in physical activity mean to you?"*.

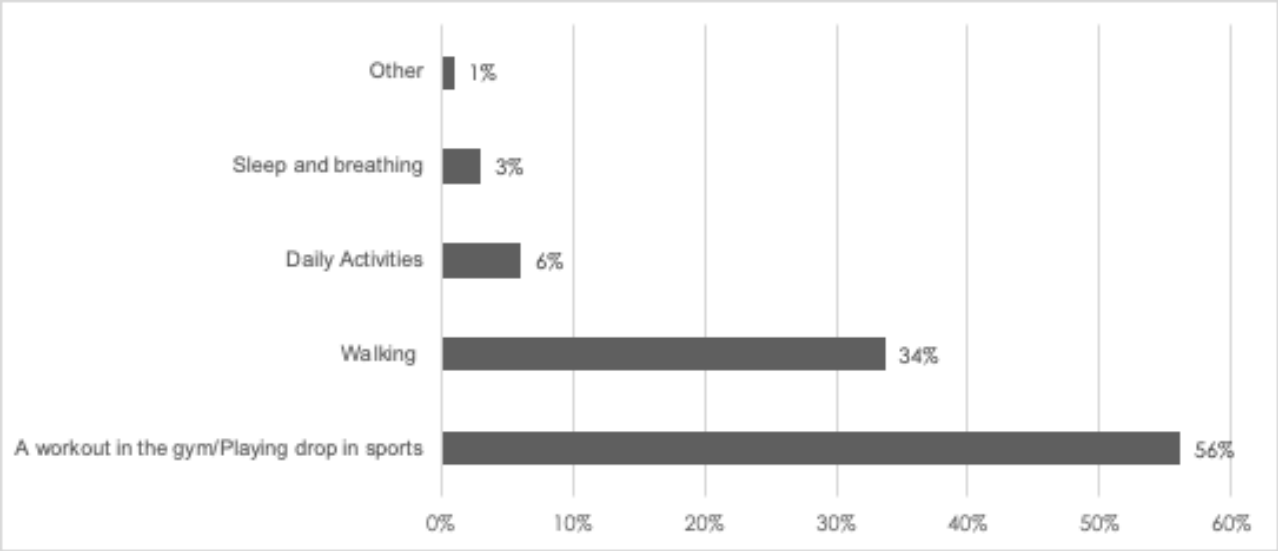

Figure 7. Participants' response to *"What motivates you to engage in physical activity?"*.

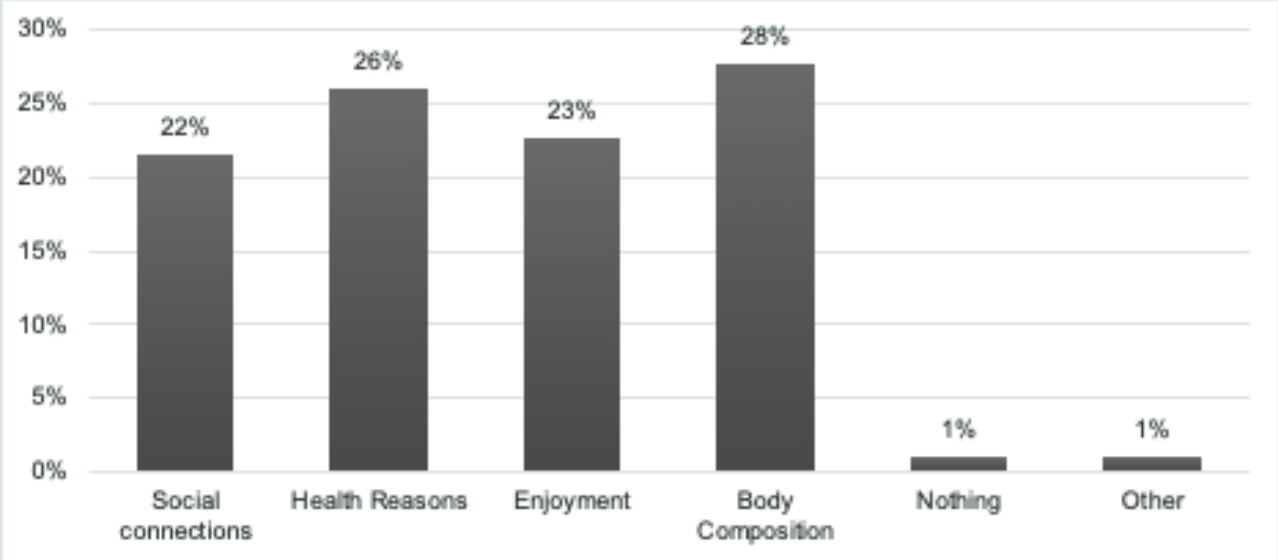

Figure 8. Participants' response to "*Prior to this survey, have you heard of the Move More Learn More Program before?"*.

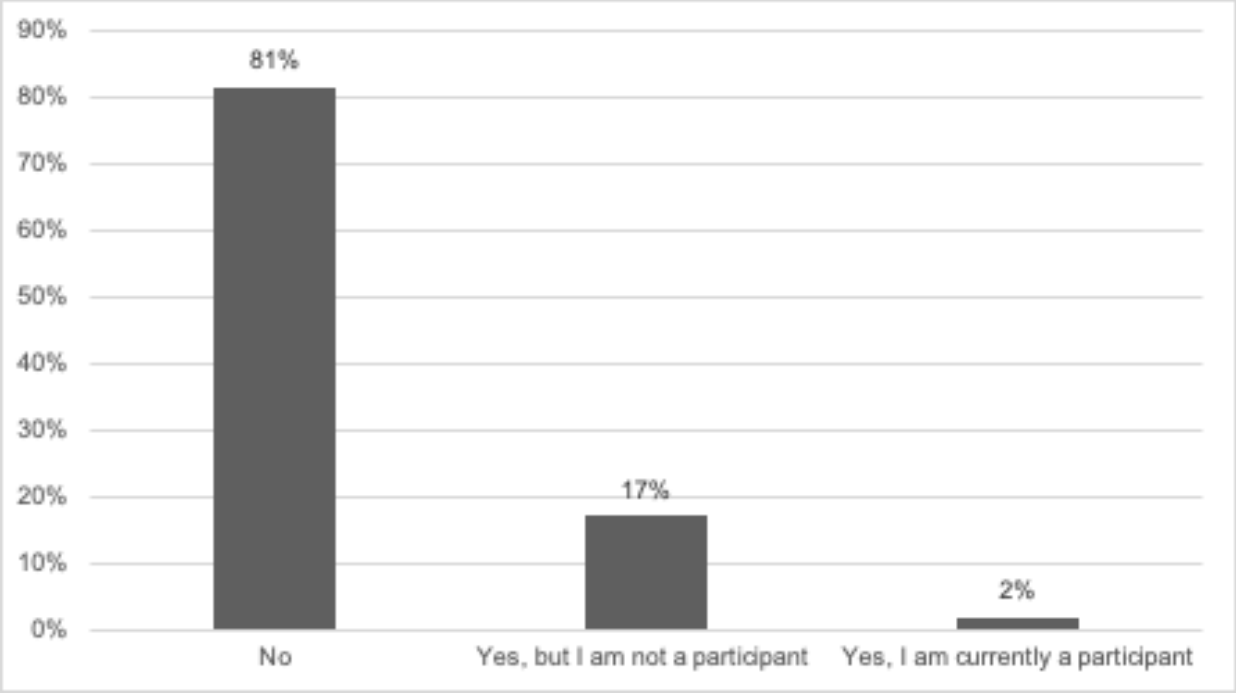

Figure 9. Participants' response to *"What modifications/changes in the program can be made in the program to better meet your needs?"*.

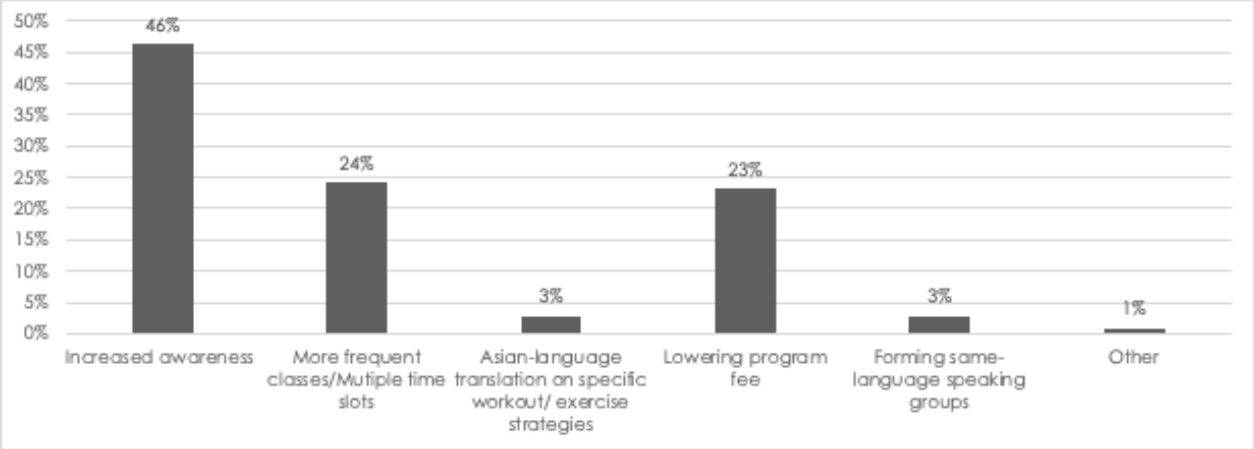

Figure 10. Participants' response to *"What topics would you like to see implemented into the program?"*.

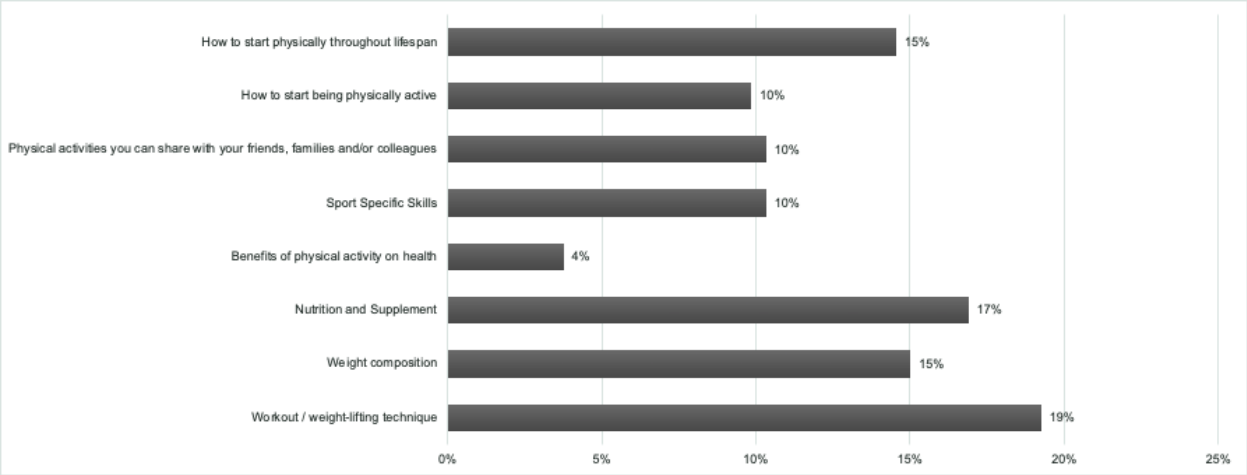

Figure 11. Participants Response to *"What types of physical activities would you like to try?"*.