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# Women's Barriers to Physical Activity Programs Organized by UBC Recreation

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**Women's Barriers to Physical Activity Programs Organized by UBC Recreation**

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Project E Group 9

KIN 464 (001): Health Promotion and Physical Activity

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## Executive Summary

Currently, UBC Recreation offers six Women's Only Programs which include Women Only Fitness Hours, Move More, Learn More, UBC Intramural W2STGN Category, Women's TSC (Thunderbirds Sport Club), Women's Only Drop-in Futsal, and Women on Weights. These programs were created to provide self-identifying women with a fun, safe, and comfortable environment, encouraging equitable participation in physical activity (University of British Columbia Recreation). Our research purpose was to evaluate the community's awareness and satisfaction with current programs, assess perceived barriers preventing participation, determine if there is a desire for additional Women's Only Programs (and if so, which ones), and provide recommendations to UBC Recreation. All participants (n= 98) that were recruited live in the Metro Vancouver region and are self-identifying women currently enrolled at UBC Vancouver as undergraduate students. Participants were directed to the qualtrics survey and were asked a series of Likert type and open-ended questions. The research highlighted four key findings. First, the majority of community members were unaware of Women's Only Programs with 76% of survey participants stating that they did not participate in Women's Only Programs because they did not know they existed. In addition, above other promotion methods, 33% of participants learned about Women's Only programs through word of mouth. Second, confusion regarding specific program details, such as location, existed among survey participants, suggesting an overall lack of clarity about program details among community members. Third, 22% of participants disagreed with the statement "I am satisfied with the variety of Women's Only Programs" suggesting that participants were uninterested in the current array of programs. Further 71% of individuals were interested in asynchronous guided workouts in a virtual format. Finally, 76% of participants stated that they would feel more comfortable participating in Women's Only Programs at UBC if the instructor of the program was a self-identified woman, suggesting a potential positive correlation between the prevalence of women instructors and participation rates. In response to the findings, there are four future recommendations for UBC Recreation that if implemented, could reduce barriers to Women's Only Programs and increase participation rates and satisfaction. First, UBC Recreation could increase their use of social media to advertise Women's Only Programs, thus increasing community awareness. Second, UBC Recreation can increase the clarity of programs and simplify the registration process in order to make accessing classes and program details easier. Third, they can incorporate additional activities suggested by community members, such as yoga and boxing in a women's only format, along with incorporating new methods of delivering programs, such as virtual classes. Four, they can recruit more women instructors and increase the community's awareness that Women's Only Programs are led by these self-identified women. One area for future research could be assessing how a lack of representation in Women's Only Program instructors is a potential barrier that exists to discourage community members from participating in these programs. In addition, due to the limited number of survey participants who took part in Women's Only Programs (only 12%), it was difficult to assess the community's satisfaction with specific programs. Therefore, once participation rates in Women's Only Programs increase, an avenue for future research could include a more thorough assessment of each program's quality and effectiveness.

## Introduction

Within the context of gender and physical activity (PA), there are many known barriers when it comes to the participation of self-identifying women in recreational programs. When certain demographics experience barriers to PA, they are not granted equitable access to the health benefits that PA provides, such as prevention of cardiovascular diseases and Type 2 diabetes (Gjestvang et al 2019; Salvatore & Marecek, 2010). At the University of British Columbia (UBC), the female undergraduate population is one such demographic that has been reported to experience certain inequities regarding engagement with PA; previous UBC Social Ecological Economic Development Studies (SEEDS) that sought to identify these discrepancies confirmed that cross-culturally, women who attend the UBC campus consistently fail to meet PA guidelines set by the World Health Organization (Carston et al., 2020; Stevens et al., 2020). Accordingly, UBC SEEDS research projects uncovered several perceived barriers for women engaging in PA at UBC (Caston et al., 2020; Levorson et al., 2020; Stevens et al., 2020). Current research also suggests that co-ed gym settings and programs are sources of anxiety and perceived judgment that can discourage those who identify as women from participating in PA (Fisher et al., 2018). In hopes of alleviating these barriers, UBC Recreation currently hosts 6 Women's Only Programs (WOPs): Women's Only Fitness Hours, Move More Learn More, UBC Intramurals W2STGN Category (Women, Two-Spirit, Gender Non-Conforming), Women's UBC Thunderbirds Sport Clubs (UBC TSC), Women's Only Drop-in Futsal, and Women on Weights (University of British Columbia Recreation).

This study was conducted in collaboration with UBC SEEDS, KIN 464 professor Dr. Andrea Bundon, KIN 464 teaching assistant Staci Mannella, and UBC Recreation in order to address the potential issues and develop recommendations pertaining to 'Women's Only Recreation Programming at UBC'. Suitably, the aim of this study was to assess UBC

Recreation based on community satisfaction with the current available WOPs and to explore whether there is a need for other WOPs. Based on the data received, we were able to provide future suggestions for UBC Recreation regarding the organization and implementation of UBC WOPs. This study's priority resides in its ability to 'foster wellbeing & inclusive place-based & resilient communities'. With this in mind, results were gathered based on the premise that participants self-identified as a woman regardless of their biological sex, as per UBC Recreation's principles on gender identity and expression (University of British Columbia Recreation).

### **Literature Review**

Several studies have highlighted the experiences of women engaging with PA in mixed-gendered environments, such as public gyms. Research conducted by Fisher et al. (2018) examined the experiences of women in mixed-gender PA settings and found that women engage with PA in mixed-gendered settings differently based on the layout of the environment as well as who is in the environment (Fisher et al., 2018). In particular, their findings revealed that women appear to be less likely to engage in PA in mixed-gendered settings because of gender-normative beliefs around what exercises to perform and concerns regarding the male-dominant presence in such contexts (Fisher et al., 2018). As a result, women who train in mixed-gendered gyms tend to modify what exercises they do and where they do them based on the proximity of the male-dominated areas of the gym (Fisher et al., 2018; Salvatore & Marecek, 2010). As such, WOPs provide an integral role in the PA levels of UBC students that identify as women in that they provide spaces for women to engage in PA with less pressure associated with gendered-expectations and fears of judgment or attention from men in the space (Fisher et al., 2018).

In a study conducted by Rothberger et al. (2015), the authors examined how self-efficacy (feelings of competence and self-confidence) can predict levels of Social

Physique Anxiety (SPA) (feelings of anxiety as a result of the judgment of one's physique by others) and influence an individual's decision to engage in PA in a public setting. Findings from this study displayed a relationship in which those who are less efficacious have higher levels of SPA, and as a result are less likely to participate in PA (Rothberger et al., 2015). It could then be argued that if WOPs can effectively foster self-efficacy in UBC undergraduate students, an increase in participation rates of UBC Recreation's WOPs may follow. For example, in the study conducted by Cole & Ulrich-French (2017), researchers found that Pink Gloves Boxing, a women's only boxing program held at various locations around the USA as well as online, was found to provide a supportive community and an opportunity for physical achievement that can empower participants and foster self-efficacy, further affirming the ability of WOPs to help encourage women to engage with PA.

Researchers studying the motives and barriers to PA adherence in a fitness club setting found that exercise drop-out was highest within the first year of participation despite participants paying for a membership (Gjestvang et al., 2019). It was reported that the time commitment was the most common barrier to the sustained engagement of PA (Gjestvang et al., 2019). To combat exercise drop-out, the researchers proposed that programs provide guidance for participants regarding how to plan and incorporate exercise into everyday life. This may be relevant as previous SEEDS studies have found that UBC undergraduate students struggle to make time to engage with UBC Recreation programming (Abella et al., 2019; Caston et al., 2020). In addition to fostering community and self-efficacy, structured programs where participants can receive guidance on how to be physically active as well as how to incorporate programming into their schedules may prove to be helpful resources and incentivize students who are self-identifying women to participate in WOPs.

Previous SEEDS research has identified several areas in which UBC Recreation and PA are not equally accessible to all populations within the UBC community. Factors such as

distance, time slots, lack of knowledge of the space and equipment, lack of confidence, and lack of awareness have all been identified as barriers to PA (Caston et al., 2020; Elsayed et al., 2020). In addition, mixed-gendered gym spaces have been reported to be sources of anxiety and intimidation for those who are not highly efficacious within the context of PA (Levorson et al 2020; Salvatore & Marecek, 2010). These findings suggest that students who identify as women find value in WOPs in that they provide environments for PA that are more approachable. It may also suggest an interest in asynchronous classes that forgo special equipment and also provide instruction for participants, addressing barriers such as time, space, and distance.

To date, previous SEEDS research has examined specific populations of students including but not limited to international men and women (Stevens et al., 2020), Indigenous men and women (Levorson et al., 2020), Muslim women (Elsayed et al., 2020), Chinese-Canadian women (Caston et al., 2020), and Indian women (Meng et al., 2020). Specifically, these studies have examined these populations within the context of recreation and PA as a whole or within specific programs such as Women's Only Fitness Times (Abella et al., 2019) or the Move More, Learn More Programs (Kiing et al., 2019). In terms of evaluating and assessing UBC WOPs as a whole, the aforementioned SEEDS studies provided limited insight as they only focused on select WOPs, thus creating a gap in the current body of knowledge which our study was designed to address. In our study, we therefore sought to answer questions pertaining to a more holistic evaluation of WOPs, such as: Are undergraduate students who self-identify as women satisfied with the current array of WOPs? What percentage of undergraduate students who identify as women are aware of UBC WOPs? What percentage of these students participate? What other programs would undergraduate students who identify as women be interested in participating in? The ultimate goal is for the information obtained from these inquiries to be considered by UBC Recreation

so that more undergraduate students who identify as women are willing to consider participating in WOPs and in turn receive the physical and psychosocial benefits that PA provides.

## **Methods**

### Participants

The target population for this study was UBC Undergraduate students who self identify as women. Our first goal was to understand and identify which barriers the target population faces regarding participation in UBC's WOPs. Our second goal was to provide recommendations for the future management of UBC WOPs. As such, students were required to be residing in the Metro Vancouver area (see Appendix A) in order to participate in the study; a student's status as either domestic or international did not exclude them from participation provided they are able to commute to the Vancouver UBC campus to participate in WOPs. This criteria is primarily justified by the strictly in-person status of UBC Women's Only Recreational Programs, which would necessitate that participants reside within an acceptable distance from the UBC campus. Demographic data such as the students' years of study at UBC allowed us to consider whether they joined UBC before or after classes were moved online due to COVID-19, which is arguably a barrier in itself that has contributed to recent fluctuations in participation levels. Students were required to indicate whether or not they had participated in UBC WOPs in the survey; students that indicated their participation were directed to an additional set of questions pertaining to their experiences within the programs.

### Research Design and Plan

To effectively develop an understanding of how the aforementioned barriers may have affected WOPs while also allowing for the provision of future program-related recommendations, this study used a pre-experimental mixed-methods design. A



pre-experimental design allows the researchers to collect data from a large sample of students and study the collective measure of the target population's thoughts and attitudes (Kowalski et al., 2018) regarding the past and future of WOPs. Furthermore, this research design provides the ability to quantify subjective ideas that describe a participant's likelihood to use WOPs (Kowalski et al., 2018). Using this information, the researchers could then provide measurable evidence pertaining to specific areas for targeted interventions that aim to make WOPs more accessible moving forward.

Participants were recruited using convenience sampling, which is a technique that allows researchers to draw samples from groups of people that are familiar or convenient (Kowalski et al., 2018), such as UBC Undergraduate Students groups on Facebook. This technique was selected primarily for the ease of implementation and broad scope that it provides (Kowalski et al., 2018). The researchers made the survey available through social media via UBC student networks Facebook Messenger, and Instagram. More specifically, the survey link and details were sent to Facebook Messenger groups that included PSYC 314 students, PSYC 319 students, KIN 206 students, KIN 424 students, CAPS 391 students, UBC KIN transfer students, and fourth-year Kinesiology students. The researchers also made the survey information available on their respective Instagram profiles using the 'story' feature, posting a total of two times each, and additionally shared the survey details within their close UBC peer networks using platforms such as Snapchat, Facebook, and Instagram collectively. A minimum of 40 participants were required as per the project guidelines; however, given that researchers conducting mixed-methods studies typically need larger sample sizes as the data generated needs to be as precise as possible, a sample size of 98 participants was gathered after a 13-day survey period to better represent the target population (Kowalski et al., 2018). The survey was delivered through Qualtrics, an analytics software that is available to UBC students and staff. Participants were asked to complete a consent form prior to

beginning the survey wherein the study's purpose, procedure, intended outcomes, benefits, ethical considerations, and consent protocol were addressed (see Appendix B). The main incentive for students to participate was to provide students an opportunity to voice their opinions and provide recommendations on issues surrounding programs catered to students who self-identify as a woman. It was expected that this emphasis would be a good motivating factor as participants would be aware that they could benefit from the programs developed from their recommendations. However, to further increase interest, the option to take part in a draw for two \$25 UBC Bookstore/Food Services gift cards or a fitbit was used as an additional incentive. The chance to win a prize was advertised on the social media recruitment poster (see Appendix C) and made accessible to participants upon completion of the survey. A separate qualtrics survey link was provided for participants to enter their contact information to ensure anonymity (see Appendix D, Figure 12). Contact information was only collected if the participants opted to enter the contest draw so that winners could be notified. At the end of the study period, the participants' response data was retrieved from Qualtrics, analyzed, and shared with UBC recreation and their partners to inform future interventions and initiatives that would improve participation in WOPs. No personal data was collected during the survey.

#### Data Collection and Data Analysis

The data collected was used to quantify participants' subjective experiences about the following themes: Awareness of WOPs, participation in WOPs, promotion of WOPs, experiences within WOPs/reasons for not participating in WOPs, and future recommendations. As a mixed-methods study, the survey consisted of both quantitative and qualitative components. The quantitative component explored the aforementioned themes in order to gain data regarding program awareness and recognize barriers that either prevent or promote participation. Questions were in part represented on a 5-point Likert scale. For more

specific inquiries, such as awareness of which specific WOPs are currently available, multiple selection or multiple choice methods were implemented. No identifying data was collected during the survey. Students were asked to complete the consent form before continuing to the survey. Participants were asked to confirm that they identify as a woman, are currently enrolled in UBC undergraduate studies and reside within the Metro Vancouver area as defined within Appendix A as per the inclusion criteria of the study. Participants were then asked to confirm their year of study, what faculty they are enrolled in, and how many years they have been studying at UBC. The reason for these distinctions are to determine if WOPs are advertised to and utilized by different populations of students differently. This information may also help to further establish a foundation for future research to develop interventions that target specific, underserved populations of UBC students. As illustrated in the survey flow chart (see Appendix E), one section of the survey allowed for two different participant streams. In the first stream, those who selected that they had participated in WOPs moved to the next set of questions pertaining to their experiences with the promotion and the implementation of the programs (see Appendix D; Figure 6). In the second stream, those who selected that they had not participated in WOPs bypassed the aforementioned question set and instead answered questions that instead sought to address and understand their reasons for not participating (see Appendix D; Figure 7). The final set of questions within the survey addressed recommendations and potential changes they would like to see that better accommodate students' participation in WOPs. The qualitative component of the research design consisted of four open-ended questions dispersed throughout the survey that provided participants with space to elaborate on or add to the subjects discussed throughout the survey.

Mixed-methods research designs require two modes of data analysis that are appropriate for the quantitative and qualitative components, respectively. The quantitative component of the survey was subject to descriptive statistical analysis, where the results have

been visually represented using bar-graphs. Presenting the information visually allowed the researchers to identify target variables and barriers that appear to affect participation of WOPs the most, and in turn develop interventions that address these areas specifically. Open-ended responses were analyzed via thematic analysis wherein the researchers summarized the transcripts in order to identify and determine constructs that were deemed relevant to the participation and evaluation of UBC WOPs. These constructs were analyzed and categorized into themes that serve to identify additional areas for targeted interventions that may not have been identified during the quantitative component of the survey.

## **Results and Findings**

### Descriptive Statistics

From the 98 survey participants, 78 participants completed the survey in its entirety, while 20 were incomplete entries. We decided that the opinions of those who partially completed the survey was just as valid as those who completed the survey in full. Therefore, all collected data was used regardless of survey completion. Results showed that 89 participants lived within the Metro Vancouver area, 1 participant did not and 8 did not complete the question. When asked about their year of study at UBC, 86 participants answered with 1 participant being a first year student, 20 being second year students, 35 being third year students, 27 being fourth year students, and 3 being fifth year students. Additionally, 16 participants were enrolled in the faculty of Science, 48 in Kinesiology, 1 in Economics, 14 in Arts, 6 in Land and Food Systems, and 1 in “other”.

When asked about the participants' awareness of WOPs, the researchers received 114 answers due to the fact that multiple selections were permitted. 11 participants were aware of the Women's Thunderbirds Sport Club, 22 were aware of Women's Only Fitness Hours, 6 were aware of Women's Only Drop-in Futsal, 4 were aware of Women on Weights, 17 were aware of UBC Intramurals W2STGN Category, 6 were aware of Move More, Learn More,

and 48 of the 86 who answered this question were not aware of any of the aforementioned programs. Furthermore, researchers asked if participants had attended any WOPs wherein 3 participated in Women's Only Fitness Hours, 1 participated in Women On Weights, 6 participated in UBC Intramurals W2STGN category, and 76 did not participate in any programs. Additionally, those who participated in WOPs were also asked to specify where they saw WOPs being promoted in a multi-select format. 6 participants selected word of mouth, 5 selected UBC Recreation Booths, 5 selected social media, 1 selected posters and 1 selected "other". Follow up questions for those who participated in WOPs were asked on a Likert scale to select either "strongly agree, agree, neutral/unsure, disagree or strongly disagree" to the following statements. For the statement: "The gym space was too small and/or they lack the equipment that I want", 1 participant strongly agreed, 3 agreed, 3 were neutral or unsure, and 2 disagreed with the statement. When asked "I am satisfied with the variety of WOPs offered by UBC" 2 agreed, 5 were neutral or unsure, 1 disagreed, and 1 strongly disagreed. When asked "I am satisfied with the quality of WOPs offered by UBC", 4 agreed, 2 were neutral or unsure, 2 disagreed, and 1 strongly disagreed. When asked, "I am satisfied with the hours that WOPs offer", 5 agreed, 1 was neutral or unsure, and 3 disagreed. Lastly, when asked if they felt more comfortable exercising in a Women's Only setting compared to co-ed settings, 4 participants strongly agreed, 1 agreed, and 4 were unsure or neutral.

Participants who did not participate in WOPs were directed to another set of questions. Again, the questions were arranged as a Likert scale where participants were asked to either select "strongly agree, agree, neutral/unsure, disagree, strongly disagree to a series of statements. When asked if their level of competence was a barrier to attending WOPs, 1 strongly agreed, 4 agreed, 16 were neutral or unsure, 27 disagreed, and 24 strongly disagreed. When asked if their lack of awareness regarding WOPs prevented them from participating in

WOPs, 33 strongly agreed, 22 agreed, 3 were neutral or unsure, 10 disagreed, and 4 strongly disagreed. When asked if they did not participate in WOPs because the current programs are not interesting to them, 4 strongly agreed, 16 agreed, 27 were neutral or unsure, 18 disagreed and 7 strongly disagreed. When asked about the small gym space and/or lack of equipment being a barrier to participating in WOPs, 2 participants strongly agreed, 5 agreed, 24 were unsure or neutral, 31 disagreed, and 10 strongly disagreed. When researchers asked participants if they were comfortable in their current exercise space, whether that was co-ed or off campus settings, 10 strongly agreed, 26 agreed, 21 were neutral or unsure, 12 disagreed and 3 strongly agreed. Lastly, when asked if the time slots did not work with their schedule, 5 strongly agreed, 7 agreed, 30 were neutral or unsure, 21 disagreed, and 9 strongly disagreed.

After the completion of questions specific to the participant, all participants were asked again to answer on a Likert scale in regards to future recommendations for WOPs. In response to the statement, “I would be interested in following a live guided workout in an online Women’s Only format”, 16 participants strongly agreed, 29 agreed, 16 were neutral or unsure, 14 disagreed, and 3 strongly disagreed. When asked if participants would be interested in attending asynchronous guided workouts in an online Women’s Only format, 18 strongly agreed, 37 agreed, 16 were neutral or unsure, 6 disagree and 1 strongly disagreed. Researchers also wanted to know if participants would be interested in participating in Women’s fitness challenges/team challenges in an in-person format, to which it was found that 21 strongly agreed, 29 agreed, 17 were neutral or unsure, 8 disagreed, and 3 strongly disagreed. Lastly, participants were asked if they would feel more comfortable participating in WOPs if the instructor self-identified as a woman, 31 strongly agreed, 28 agreed, 10 were unsure or neutral, 7 disagreed, and 2 strongly disagreed.

There were a total of 78 participants that went on to answer the following statement in a Likert scale format, “I believe that WOPs are important”; 51 participants strongly agreed,

21 agreed, 5 were neutral or unsure, 1 participant strongly disagreed, and 20 did not answer this question. Lastly, participants were asked if a Women's only gym facility would interest them; 69 participants said yes and 9 participants said no.

### Descriptive Qualitative Analysis

In addition to the quantitative survey questions, participants were also given the option to answer 4 qualitative questions throughout the survey. Researchers included open-ended boxes to allow participants to fully express their opinions on WOPs, if desired. The first open-ended question: "What are your reasons for participating in WOPs" was provided to those who participated in WOPs, and the following responses were recorded; "I was on a women's basketball team. I [chose] it because in co-rec settings, there are many males who are not cooperative and it takes away the fun of the sport"; "it felt more comfortable in some cases"; "safety"; and "men bothering me in the gym". Through these responses, 2 main themes were developed (1) participants felt more safe and comfortable in the programs when compared to normal program settings (i.e gym settings), and (2) that there was a power/ participation imbalance between genders (i.e in co-rec situations, men are not as cooperative compared to the Women's Only format).

The second open-ended question: "Are there any additional reasons you did not participate in WOPs" was directed to those who did not participate in WOPs, and the following responses were recorded; "academic workload is high so I find it hard to make time for activities"; "didn't know they existed"; "I don't know enough about them"; "I like to workout with everyone not just women"; "I wasn't aware of any"; "I was pregnant at the time I was at UBC when classes were in person"; "i workout well on my own and I don't really care if there are men around"; "if it's in-person then it's a bit out of the way for me. Plus, COVID is still a thing"; "In the summer of 2019 I tried to form a women's only soccer team to join the women's only intramurals soccer league, but was informed right before

season started that I was the only team who had signed up for the women's only league, and that we thus had to quit or join the combined men and women's league"; "insecurities and not enough time to participate in extracurriculars"; "wanted to participate in those activities with male friends"; and "only knew of one program available". From the results collected, researchers were able to find 5 common themes in regards to not participating in WOPs; (1) there is a lack of awareness and knowledge about the programs, (2) participants are comfortable in their co-ed setting, (3) participants want to work out with all genders, (4) participants have a heavy academic workload, and (5) participants endure a long commute to campus. Of these themes, the largest concern raised from participants was an overall lack of knowledge of the programs which would result in the absence of participation in said programs.

All participants were asked if there were any additional activities or sports that they would like to see in a Women's Only format. The following programs and activities were suggested, "yoga", "boxing", "kickboxing", "biking [programs]", "womens' self defense", "zumba", "spin", "soccer", and "basketball", "circuit or [high intensity interval training]". From this list, both yoga and boxing were recommended by multiple participants, thus suggesting their popularity as a potential option.

The last open-ended question asked participants if they had any other thoughts or comments on UBC WOPs, and the following responses were recorded, "I think they are not promoted enough, I was not aware of the existence of many of them"; "Women's Only Fitness Hours should give women access to full gym equipment and not be limited to what is in the studio"; "I've actually taught classes for the move more learn more program many times, so my responses are all based as an instructor for one of these programs! I think [WOPs are] amazing and super important! "; "I think they are super important. I HATE going to a co-ed gym"; "I haven't heard much about them but they seem important"; "I have



noticed that although the UBC arc advertises women only hours it is not enforced and it does not seem any different than regular hours. The gym is equally busy and male participants are still in the gym during these hours”; “As someone who transferred from another institution, it would be helpful to increase advertising to those who just joined UBC”; and “A women’s only gym would be AMAZING. I hate using the arc or bird coop because it’s hard to get a turn on the machines because men hog them”. Through thematic analysis, researchers were able to find 3 main themes among the survey participants, (1) the desire to access more gym equipment during Women’s Only Fitness Hours, (2) lack of awareness of what Women’s Only Hours entail, and (3) UBC Recreation should increase advertising to incoming students.

### **Discussion**

Overall, the study’s results have revealed many key findings that coincide with the current literature available. Furthermore, valuable insight has been gained to further develop and implement programs at UBC in a Women’s Only format. Of all our survey respondents, 92% were in agreement that WOPs are an important feature of UBC Recreation; however, current program awareness (44%) and participation rates (12%) for the total participant pool are comparatively low. When barriers surrounding lack of participation for those who had not engaged in WOPs were assessed, 76% of these participants agreed with the statement that they did not participate because they were ‘unaware of any of the WOPs’. When collectively evaluating these numbers, it is clear that despite their perceived importance, UBC WOPs are potentially not being utilized to their full capacity.

As supported by current literature and previous SEEDS studies, there are various reasons that women could benefit from participating in such programs. At UBC specifically, these programs serve to counter barriers specific to women that may lower participation in PA such as feelings of intimidation, low perceived self-efficacy, cultural considerations, and inclusivity issues (Caston et al., 2020; Levorson et al., 2020; Stevens et al., 2020). Based on

our findings, we were able to support that several of these barriers are in fact present in the context of participation in PA for UBC undergraduates who identify as women. For example, issues that occur in co-ed settings pertaining to inclusivity and intimidation can be identified in some of the qualitative responses that we received, such as “...it’s hard to get a turn on the machines because men hog them”, and “I HATE going to a co-ed gym”. Further, when participants who had participated in the programs were asked for their reasons in doing so, themes such as safety, comfortability, and inclusivity were identified (see Appendix F; Figure 29). Interestingly enough, findings from our study revealed that the barrier of feeling ‘not competent enough’ to engage in WOPs was widely rejected by participants, with 71% reporting that they disagree with this being a reason for them not participating. Aside from awareness, the only other significant barriers that reportedly prevented individuals from participating were a lack of interest in the current programs (28%) and other exercise settings being preferred (50%) such as off-campus or co-ed environments. It is important to note, however, that the latter of these reported barriers may not entirely reflect faults in the attraction of WOPs, but instead be perform as a function of COVID-19 and its resultant confounding variables such as lack of campus commuters and/or lack of comfortability in *any* social exercise setting.

In terms of program satisfaction, several findings can be derived from the data provided by those who reported to have participated in UBC WOPs, albeit a small percentage of the total participant pool. When asked for their satisfaction ratings regarding various elements of UBC WOP, 45% of these participants were in agreement that the gym spaces were too small and lacked the equipment that they wanted. In terms of the variety and quality of the programs offered, 22% disagreed that they were ‘satisfied with the variety’ and 33% disagreed that they were ‘satisfied with the quality of WOPs offered by UBC. Within the survey, all participants were asked whether there were any additional activities or sports that

they would like to see UBC WOPs offer. Overwhelmingly, self-defense based activities (with the exception of yoga) were among some of the most popular to be listed, such as boxing, kickboxing, and women's self-defense. This finding is strongly aligned with the research of Cole & Ulrich-French (2017), where they noted that the implementation of a women's only boxing program can provide a supportive community and opportunities for physical achievement that work to foster self-efficacy and empower those who participate. It is therefore not inherently surprising that a demographic of undergraduate students who identify as women would express high amounts of interest in such a program.

When participants were asked about their satisfaction with the hours that UBC WOPs offer, 33% of the participants selected that they were not satisfied. From this data, it is evident that there is still a small percentage of individuals who are not entirely satisfied with the environment, variety, hours, and quality of UBC WOPs. Although these numbers are already a minority, it is clear that there is still room for improvement for UBC WOPs. Within the study survey, an opportunity for insight regarding future directions and interventions of WOPs was also provided wherein very promising results ensued. Firstly, 58% of the participant pool were in agreement with the idea of synchronous, or live guided workouts being offered in a virtual setting, with an even more promising 71% of participants expressing support for the implementation of asynchronous guided workouts. Interest for other activity types, such as in person team challenges was met with a 64% support rate. The last future-oriented question that was asked in the study survey was whether or not participants were interested in the implementation of a Women's Only gym facility, wherein 88% of participants indicated 'yes'. Finally, it is important to mention that 76% of participants agreed with the statement: 'I would feel more comfortable participating WOPs at UBC if the instructor of the program was a self-identified woman'. This goes beyond the current research in that it implies that elements of representation are a potential barrier to

consider in addition to the existing ones. The idea of representation being considered for UBC WOPS is a new finding that would be interesting to pursue as a future avenue for program implementation, as discussed later in this paper. Collectively, this data serves as a very strong start towards filling a previous gap in the literature regarding the assessment of and recommendations for WOPs.

### Limitations

There were a few limitations in this study. Firstly, we provided a question within our survey in which participants were provided a description of WOPs and then told which answer to select. This question served as a reading and attention check that served to make sure that participants were reading the question fully and not simply selecting random answers. Of the 98 participants, 93 participants answered the questions correctly, meaning that 5 participants answered incorrectly. From this, it can be inferred that either a) the question was too wordy and the participants did not feel like reading it in its entirety or b) these specific participants were not fully engaged when filling out their answers throughout the survey. However, due to the large number of participants who *did* respond to this question correctly, it is not expected that the participants who answered incorrectly had any large effects on the integrity of the corresponding data. In order to overcome this limitation in future research, it is recommended that

Another limitation to this study was the limited duration and reach of the survey. Due to time constraints, the survey was open for a total of 13 days which limited the number of responses that the researchers were able to receive. Additionally, a large sum of the survey participants were third year students (n=35) and Kinesiology students (n=48), meaning that the leading demographic for the survey was third-year Kinesiology students. This overrepresentation of upper level Kinesiology students may have been driven by the fact that

a convenience sampling methodology encouraged researchers to connect with their undergraduate networks, such as their KIN 464 peers, in order to recruit participants. This suggests that the data and input were not distributed as evenly as desired in accordance with student faculty categories. Furthermore, there was a relatively low representation of participants who attended WOPs. With only 10% (n=10) of the survey participants selecting that they *had* attended WOPs, it was difficult to assess the programs in their entirety as researchers were unable to collect enough data to suggest any specific program adjustments.

Finally, it is plausible that this lack of participation for individuals can ultimately be tied in with the COVID-19 pandemic- a suggestively large limitation for the study altogether. As the number of students living on and commuting to the UBC campus has decreased due to the pandemic, it can be inferred that the presence of self-identifying women who are willing to engage in WOPs on campus has been significantly diminished. Nevertheless, the data collected throughout this study was utilized to its fullest capacity in order to address and assess details beyond the COVID-19 pandemic and thus be most useful in providing feedback for UBC Recreation and its affiliates.

### **Recommendations**

The following recommendations were produced from data and observations provided by all participants involved in the mixed-methods survey. This means that for those who had not yet participated in WOPs (n=76), suggestions were provided regarding what changes could be made that would entice them to become more involved. In contrast, the survey was able to pursue more direct inquiries regarding evaluations of and suggestions for WOPs with participants who had already participated in them (n= 10). Collectively, the researchers were able to utilize data from both cases to provide four future recommendations for UBC Recreation's WOPs: (1) Increase social media advertisement, (2) improve the simplicity to

register and the clarity of the programs, (3) incorporate a variety of programs, (4) recruit more instructors that self-identify as a woman.

#### Increase social media advertisement

After analyzing the data, it was found that the majority of participants heard of WOPs through word of mouth, followed by on-campus methods such as posters and UBC Recreation booths. It could be argued that because all in person classes are currently held in an online format in response to the COVID-19 pandemic, the aforementioned methods for promotion may be less effective, potentially explaining the high rates of participants reporting to be unaware of WOPs. As such, the first recommendation to UBC Recreation is to use social media platforms such as Facebook, Instagram, and Twitter to promote WOPs. At the time of the study, UBC Recreation had acquired 5,781 followers on Instagram, 13,794 followers on Facebook, and 4,797 followers on Twitter. This is a considerable following from the student body and could be a significant platform for promoting WOPs. One example of a practical promotional strategy is that facilitators could use the story/story highlight features on Instagram and Facebook to include “did you know?” facts to promote WOPs. To further assist with the promotion of WOPs, UBC Recreation facilitators could create fun quizzes or daily challenges based on WOPs. In addition, the aforementioned quizzes could incentivize engagement by offering prizes or rewards that encourage students who self-identify as women to participate in WOPs.

#### Improve the simplicity to register and the clarity of the programs

Further based on results from the study, the researchers believe that UBC Recreation can potentially expand the reach of WOPs by improving registration and program details. In the initial stages of analysis, the researchers found it difficult to find information on WOPs as some hyperlinks did not work or it was difficult to find where to register and determine which programs were running. It is worth noting that the majority of the researchers are new to

UBC and have not used the UBC Recreation website as much as returning students; thus, this could potentially mimic those who are interested WOPs but do not register because of the difficulty of navigating the Women's Only Program website. Furthermore, clarity of communication regarding each program should be an area of improvement for UBC Recreation. For example, one participant correctly stated that Women's Fitness Hours were occurring at the studio; however, another survey participant said "I have noticed that although the UBC advertises women only hours it is not enforced and it does not seem any different than regular hours. The gym is equally busy and male participants are still in the gym during these hours" suggesting it is not clear where some programs are running and what they entail. Clarifications regarding locations, times, and additional information can all be communicated through social media platforms.

#### Incorporate a variety of programs

Currently, UBC offers 6 WOPs: Women on Weights, Women's Only Fitness Hours, Move More, Learn More, UBC Thunderbirds Sport Club, Women's only Drop-in Futsal and UBC Intramurals W2STGN category. As mentioned in the literature review and discussion, research conducted by Cole & Ullrich-French (2017) highlighted that structured programs with guidance and instruction such as boxing classes provide a supportive community and foster self-efficacy. As such, we asked participants which programs they would be most interested in seeing that were not currently available through UBC Recreation's WOPs. Based on the results of the study, we recommend yoga and boxing to be a plausible inclusion in a Women's Only format as participants ranked these as their most favorable. Other programs such as women's self-defense classes and zumba or high intensity interval training (HIIT) could also be future avenues for WOPs. To further develop UBC WOPs, data from our survey found that participants would be interested in an Online WOP in both a synchronous and asynchronous setting (see Appendix F; Figures 21 & 22). Seeing as UBC is

a rather long commute for some participants, an online format of programs could be used to ensure that those who can not make it to campus still have the opportunity to participate in WOPs.

Recruit more instructors that self-identify as a women

The most prevalent findings in our recommendation section of the survey was the notion that participants would feel more comfortable participating in WOPs if the instructor was a self-identified woman (see Appendix F; Figure 24). Thus, our last recommendation for UBC Recreation is to recruit more instructors that self-identify as a woman in order to maximize representation for potential program participants. Increasing community awareness of instructors that self identify as women could be done through a “get to know your instructor” promotion that could occur 1-2 weeks before registration opens for classes. Consequently, giving the chance to get to know a little bit more about their instructors beforehand may assist potential participants in feeling more comfortable signing up for and attending classes hosted by UBC WOPs.



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## Appendix A



Metro Vancouver. (n.d.). *About us*. <http://www.metrovancouver.org/about/Pages/default.aspx>

An image of the municipalities that are considered to be located within the Metro Vancouver area. Listed alphabetically, this includes: Village of Anmore, Village of Belcarra, Bowen Island Municipality, City of Burnaby, City of Coquitlam, City of Delta, Electoral Area A, City of Langley, Township of Langley, Village of Lions Bay, City of Maple Ridge, City of New Westminster, City of North Vancouver, District of North Vancouver, City of Pitt Meadows, City of Port Coquitlam, City of Port Moody, City of Richmond, City of Surrey, Tsawwassen First Nation, City of Vancouver, District of West Vancouver, and City of White Rock . Referenced from: Metro Vancouver. “Member Municipalities.” *Metro Vancouver*, 2019, [www.metrovancouver.org/about/municipalities/Pages/default.aspx](http://www.metrovancouver.org/about/municipalities/Pages/default.aspx).

## Appendix B

### Consent Form



THE UNIVERSITY OF BRITISH COLUMBIA

School of Kinesiology  
210-6081 University Boulevard  
Vancouver, BC Canada V6T 1Z1

Phone 604 822 9192  
Fax 604 822 6842  
www.kin.ubc.ca

### CLASS PROJECT: Health Promotion and Physical Activity (KIN 464)

#### Participant Consent Form

#### Women's Barriers to Physical Activity Programs Organized by UBC Recreation

#### During a Global Pandemic

#### Group #9

#### Principal Investigator:

Dr. Andrea Bundon (Assistant Professor, School of Kinesiology, Faculty of Education)

#### The purpose of the class project:

To gather knowledge and expertise from community members on their satisfaction regarding the current available UBC women's recreation programs, identify if there is a need for more women's only programs, and address the specific challenges related to the Covid-19 pandemic that bring forth substantial psychosocial and physical barriers to program participation.

#### Study Procedures:

With your permission, we are asking you to participate in a survey. You may only complete the survey once. With the information gathered, students will critically examine how different individuals understand or engage in health promoting activities or health promotion initiatives.

#### Project outcomes:

The information gathered will be part of a written report for the class project. The written report will be shared with campus partners involved with the project. Summaries of findings will also be posted on the following websites. ***No personal information/information that could identify participants will be included in these reports or shared with campus partners.***

UBC SEEDS Program Library:

<https://sustain.ubc.ca/courses-degrees/alternative-credit-options/seeds-sustainability-program/seeds-sustainability-library>

#### Potential benefits of class project:

There are no explicit benefits to you by taking part in this class project. However, the interview will provide you with the opportunity to voice your opinion on your

experiences with health promoting activities or initiatives in a broad sense and will provide the students with an opportunity to learn from your experiences.

**Confidentiality:**

Maintaining the confidentiality of the participants involved in the research is paramount, and no names of participants will be collected.

At the completion of the course, all data (i.e. notes) and signed consent forms will be stored on a secure electronic drive by Dr. Bundon. All data and consent forms will be destroyed 1 year after completion of the course.

**Risks:**

The risks associated with participating in this research are minimal. There are no known physical, economic, or social risks associated with participation in this study. You should know that your participation is completely voluntary and you are free to **withdraw from the study** and there will not be negative impacts related to your withdrawal. If you withdraw from the study, all of the information you have shared up until that point will be destroyed.

**Contact for information about the study:**

If you have any questions about this class project, you can contact Andrea Bundon by phone at 604-822-9168 or by email at [andrea.bundon@ubc.ca](mailto:andrea.bundon@ubc.ca)

**Research ethics complaints:**

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the UBC Office of Research Ethics at 604-822-8598 or e-mail [RSIL@ors.ubc.ca](mailto:RSIL@ors.ubc.ca) . or call toll free 1-877-822-8598.

**Consent:**

Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time.

- Yes, I accept
- No, I do not accept

## Appendix C

### Recruitment Material



THE UNIVERSITY OF BRITISH COLUMBIA

School of Kinesiology  
210-6081 University Boulevard  
Vancouver, BC Canada V6T 1Z1

Phone 604 822 9192  
Fax 604 822 6842  
[www.kin.ubc.ca](http://www.kin.ubc.ca)

### **KIN 464: Health Promotion and Physical Activity Class-based Project**

\*\*\*Individuals who meet the inclusion criteria and complete the survey will be eligible to enter a draw to win a prize (2x \$25 gift cards to UBC Bookstore or Food Services and 1 Fitbit)\*\*\*

**If you self-identify as a Woman who is a UBC Vancouver undergraduate student living in the Metro Vancouver area we would love to hear from you!**

As part of a course-based research project (KIN 464), we are conducting a study on Women's Barriers to Physical Activity Programs Organized by UBC Recreation . If you are a self-identifying woman who is a UBC Vancouver undergraduate student living in the Metro Vancouver area we would love for you to complete a survey. More information please email [sche@student.ubc.ca](mailto:sche@student.ubc.ca)

[https://ubc.ca1.qualtrics.com/jfe/form/SV\\_7365MPgLpzSy5pQ](https://ubc.ca1.qualtrics.com/jfe/form/SV_7365MPgLpzSy5pQ)

**Please note that this post is public and anyone who likes, comments or shares the link will, by doing so, be associated with the study. The Principal Investigator on this project is Dr. Andrea Bundon ([andrea.bundon@ubc.ca](mailto:andrea.bundon@ubc.ca)).**



## Email Recruitment Material:

Dear **Professors Name:**

I am currently a student in Dr. Andrea Bundon's KIN 464: Health Promotion and Physical activity class. My group and I are currently conducting research to assess and provide recommendations to UBC Rec based on community satisfaction in regards to Women's Only Programs. We are hoping to get as much feedback from undergraduate students as we can and we're hoping you could help us share some information with your classes. We are currently looking for undergraduate students who are self-identified as women, who live within the Metro Vancouver area, and are currently a UBC student. I have attached our advertisement poster below and any further emails can be sent to myself or the email on the poster.

Thank you so much for your time,

**2 days left to participate! If you qualify for our survey we would love to hear your input! Link in @kaitwongg 's bio :)**

**If you meet the requirements please go to @kaitwongg 's profile for a link to the survey! It would mean a lot :)**

**ELIGIBILITY CRITERIA:**

1. SELF-IDENTIFIED WOMAN
2. LIVING IN THE METRO VANCOUVER AREA
3. CURRENTLY A UBC UNDERGRADUATE STUDENT

**DETAILS:**

TO GATHER KNOWLEDGE ABOUT STUDENT SATISFACTION REGARDING THE AVAILABLE WOMEN REC PROGRAMS AND IDENTIFY A NEED FOR MORE WOMEN'S ONLY PROGRAMS

**COMPLETE THE SURVEY TO BE ENTERED INTO A DRAW TO WIN A FITBIT OR \$50 TO THE BOOKSTORE OR FOOD SERVICES**

IF YOU REQUIRE FURTHER INFORMATION REGARDING THE STUDY DESIGN, EMAIL SCHE@STUDENT.UBC.CA

**LINK IN BIO**

Social Media Recruitment Material

# Appendix D

## Survey Questions

*Consent:*  
*Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time.*

February 22, 2021                      Project ID: H17-03560

Yes, I accept  
 No, I do not accept

Figure 1: Consent verification

I verify that I am a UBC undergraduate student living within the Metro Vancouver area that self-identifies as a woman.




Photo of the municipalities within Metro Vancouver  
***Metro Vancouver Overview. metrovancover, 2019. Retrieved from <http://www.metrovancover.org/about/Pages/default.aspx>***

Yes  
 No

Figure 2: Inclusion criteria verification

**Which faculty or school are you enrolled in?**

- Applied Science
- Science
- Arts
- Commerce
- Education
- Land and Food Systems
- Kinesiology
- Medicine
- Pharmacy
- Forestry
- Economics
- Other

**What year of study are you currently in?**

- First Year
- Second year
- Third Year
- Fourth Year
- Fifth Year

**How many years have you been studying at the UBC Vancouver campus (online or in-person)?**

- One year or less
- Two years
- Three years
- Four years
- Five or more years

Figure 3: Demographic Information

**Are you aware that UBC offers Women's Only Programs? If so, which ones have you heard of?**

Women's Only Fitness Hours

Move More, Learn More

UBC Intramurals W2STGN (Women, Two-Spirit, Trans, Gender Non-Conforming) Category

Women's Thunderbird Sport Clubs (TSC)

Women's Only Drop-in Futsal

Women on Weights

I am not aware of any of these programs

**Have you participated in Women's Only Programs, if so which ones?**

Women's Only Fitness Hours

Move More, Learn More

UBC Intramurals W2STGN (Women, Two-Spirit, Trans, Gender Non-Conforming) category

Women's Thunderbird Sport Club (TSC)

Women's Only Drop-in Futsal

Women On Weights

I have not participated in any Women's Only Programs

Figure 4: Awareness and Participation \* *if "I have not participated in any Women's Only Programs" is selected, the participant will skip to Figure 7\**

**Where have you seen UBC Women's Only program being promoted? (Select all that apply)**

UBC Rec Booth

Social Media (Facebook, Instagram etc)

Word of Mouth

Posters

Others

Figure 5: Promotion

Please select the best answer to the following statements in regards to your experience with Women's Only programs.

	Strongly Agree	Agree	Neutral/Unsure	Disagree	Strongly Disagree
The gym space is too small and or they lack the equipment that I want	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with the variety of Women's Only Programs offered by UBC	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with the quality of Women's Only Programs offered by UBC	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with the hours that the Women's Only Program offers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel more comfortable exercising in Women's Only Program compared to co-ed settings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What are your reasons for participating in Women's Only Programs? (If you do not wish to answer, leave blank)

Figure 6: Past experiences with Women's Only Programs and reasons for participation.

*\*Those who selected "I have not participated in Women's Only Programs" skipped this question set and were instead directed to Figure 7*

Please select the best answer to the following statements regarding Women's Only Programs.

	Strongly Agree	Agree	Neutral/Unsure	Disagree	Strongly Disagree
I did not participate in Women's Only Programs because I was not competent enough	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I did not participate in Women's Only Programs because I was not aware they existed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I did not participate in Women's Only programs because the current program do not interest me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I did not participate in Women's Only programs because the gym space was too small	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I did not participate in Women's Only programs because I am comfortable exercising in my current settings (i.e co-ed programs or off campus programs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I did not participate in Women's Only Programs because the time slots did not work with my schedule	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are there any additional reasons you did not participate in Women's Only Programs? (If not, leave blank)					
<input type="text"/>					

Figure 7: Reasons for not participating \* *those who HAVE participated in Women's Only Programs bypassed this question set and continued on to Figure 8*

Prior to COVID-19, UBC Recreation offered 6 Women's Only Programs, including Women's Only Fitness Hours, Move More, Learn More, UBC Intramural W2STGN Category, Women's TSC (Thunderbird Sports Club), Women's Only Drop-in Futsal, Women on Weights. Select "Strongly Agree" if you have read this question completely.

Strongly Agree  
 Agree  
 Neutral/Unsure  
 Disagree  
 Strongly Disagree

Figure 8: Participant reading and attention check

Please select the best answer to the following statements regarding recommendations for Women's Only Programs.

	Strongly Agree	Agree	Neutral/Unsure	Disagree	Strongly Disagree
I would be interested in following a live guided workout in an online Women's Only format	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would be interested in participating in asynchronous guided workouts in an online Women's Only format	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am interested in Women's fitness challenges/ team challenges in an in-person format	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would feel more comfortable participating in Women's Only Programs at UBC if the instructor of the program was a self-identified woman.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 9: Future recommendations

I believe that Women's Only Programs are important.

Strongly Agree

Agree

Neutral/Unsure

Disagree

Strongly Disagree

Would a Women's Only gym facility interest you?

Yes

No

Figure 10: Perceived importance of Women's Only Programs and interest in advancement

Are there any additional activities or sports that you would like to see UBC Women's Only Programs offer? (If not, leave blank)

Do you have any thoughts or comments on UBC Women's Only Programs that you would like to share? (If not, leave blank)

Figure 11: Activity recommendations and overall thoughts and comments

Thank you for your time, your responses have been recorded.

If you would like, use this link [https://ubc.ca1.qualtrics.com/jfe/form/SV\\_9sDdsFeffXIVlkm](https://ubc.ca1.qualtrics.com/jfe/form/SV_9sDdsFeffXIVlkm) to enter to win the following prizes:

- 2 x \$25 UBC Bookstore Gift Card or UBC Food Services Gift Card
- 1 Fitbit

Please select **GROUP 9** when filling out the survey.

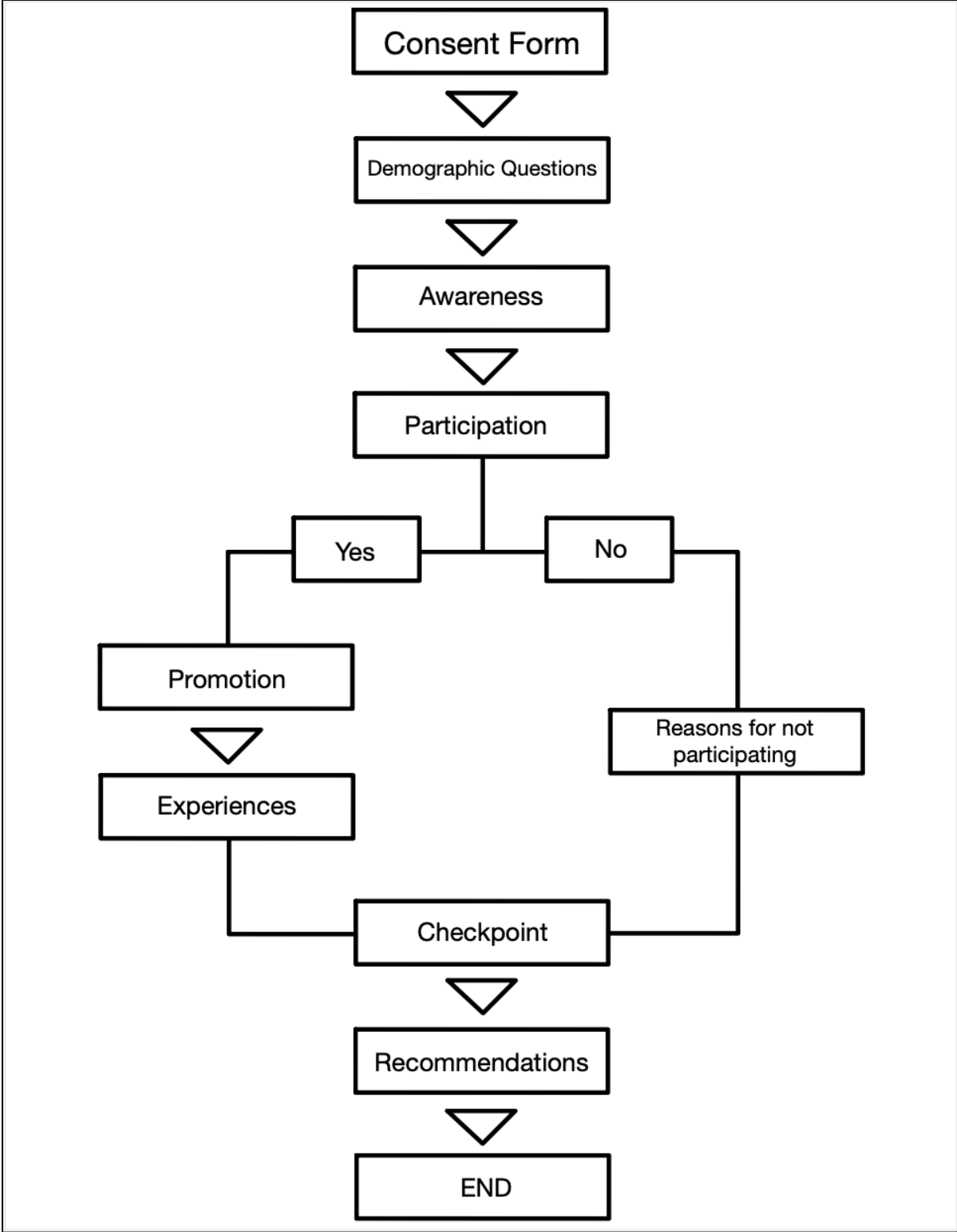
If not we hope you have a wonderful day!

Figure 12: End of survey screen with option to enter for prize



Appendix E

Survey Flow Chart



**Appendix F**

Results from Survey

Q1: Consent: Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time.

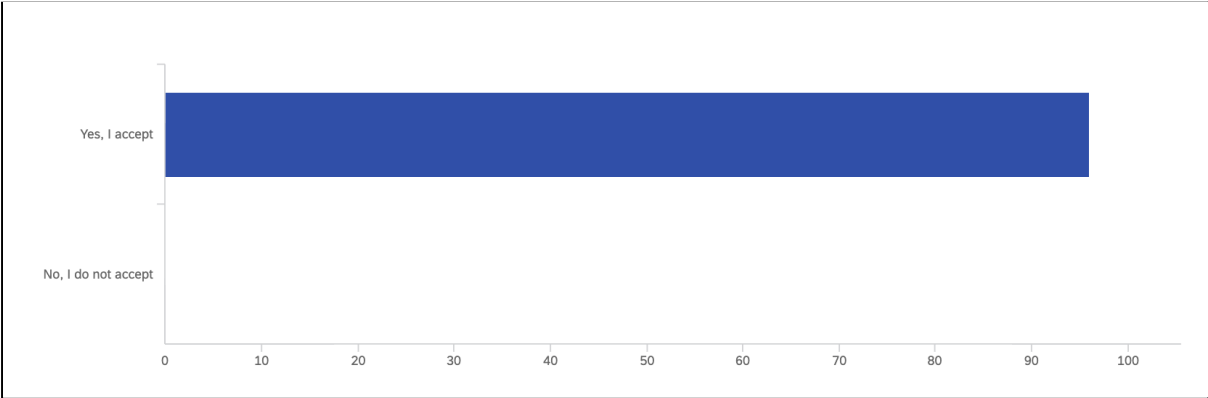


Figure: 1 Consent

Q2: I verify that I am a UBC undergraduate student living within the metro Vancouver area that self-identifies as Women.

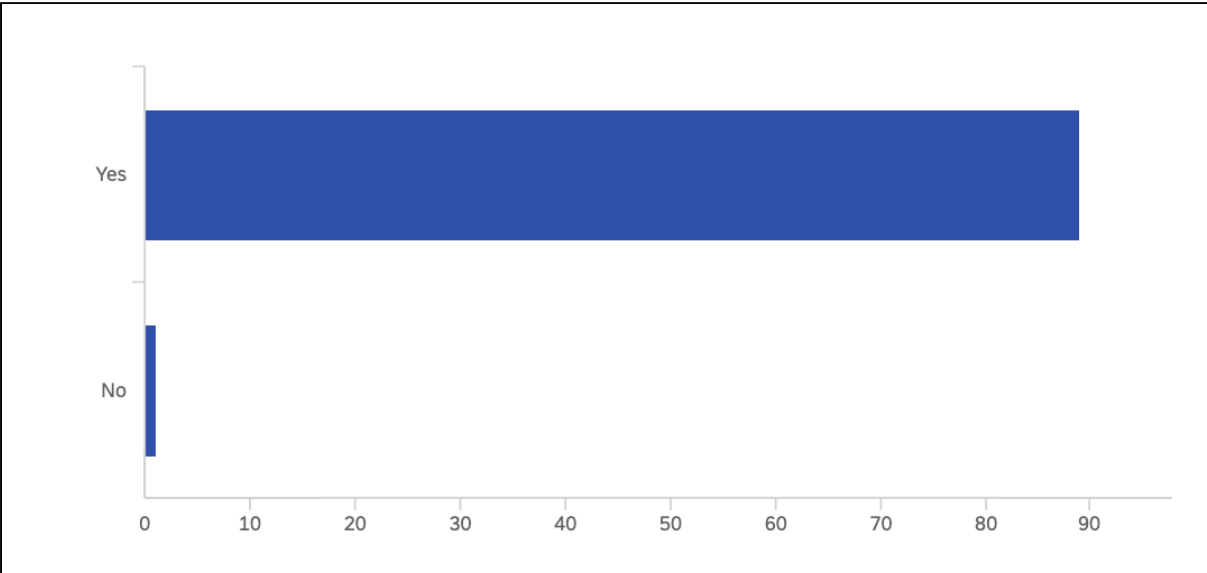


Figure 2: Verification

Q3: What year of study are you currently in ?

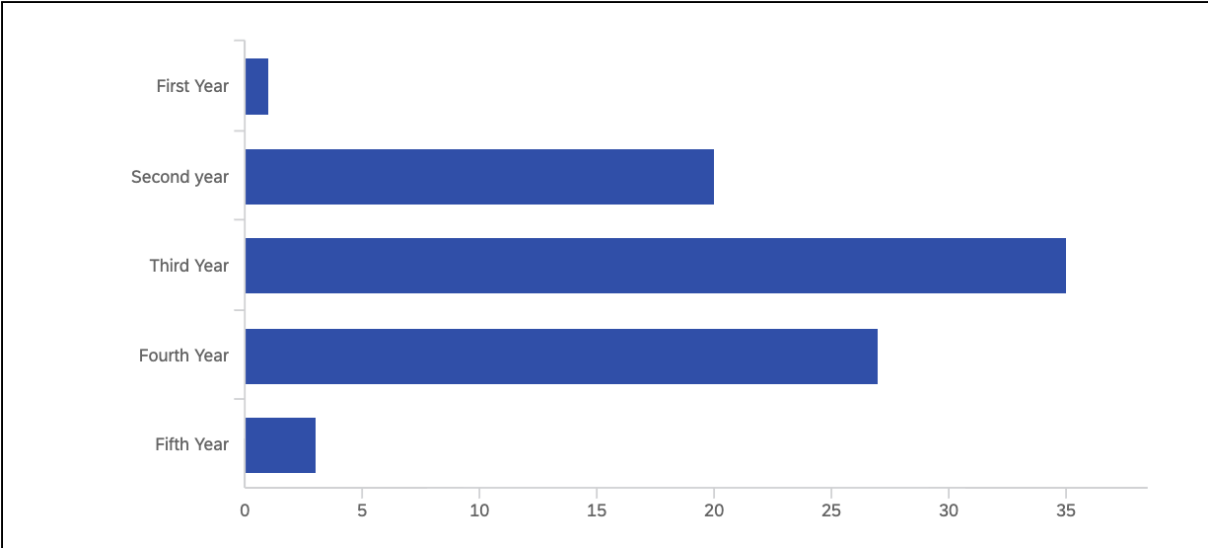


Figure 3: Year of Study

Q4: How many years have you been studying at the UBC Vancouver Campus (Online or in-person)?

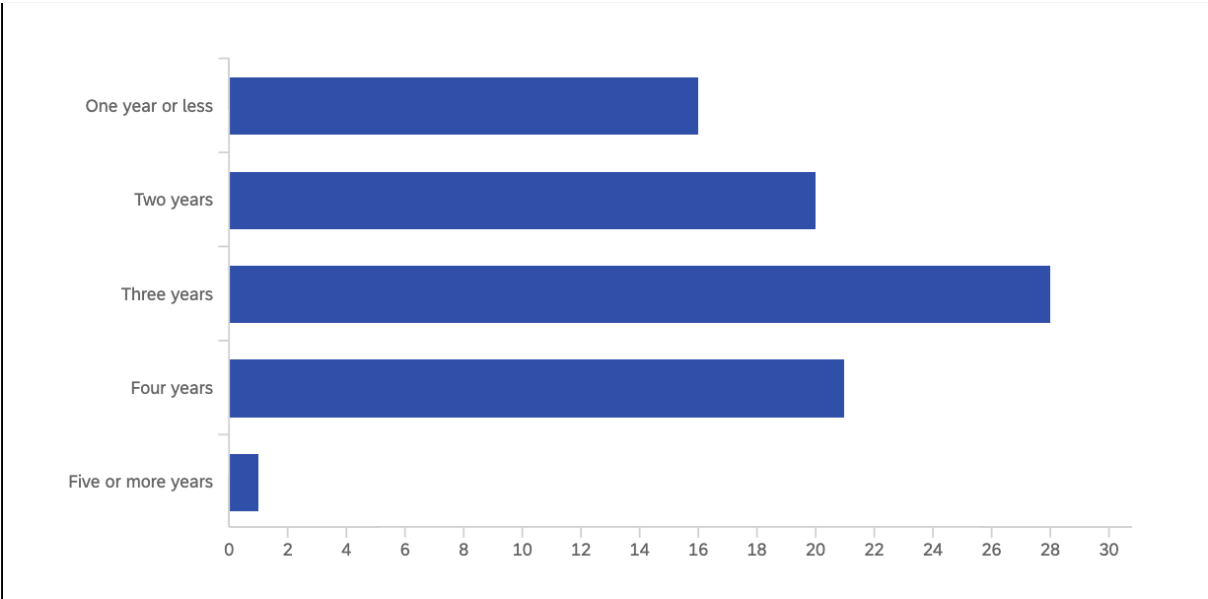


Figure 4: How many years they have been studying at UBC- Vancouver Campus

Q5: Which faculty or school are you enrolled in ?

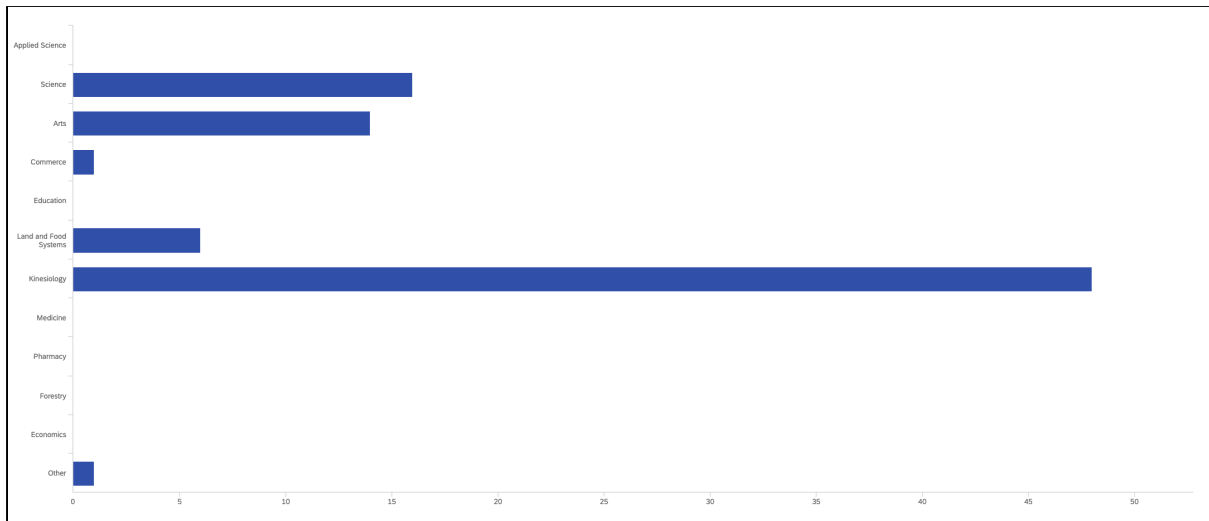


Figure 5: Faculty of participants

Q6: Are you aware that UBC offers Women's Only Programs? If so, which ones have you heard of ?

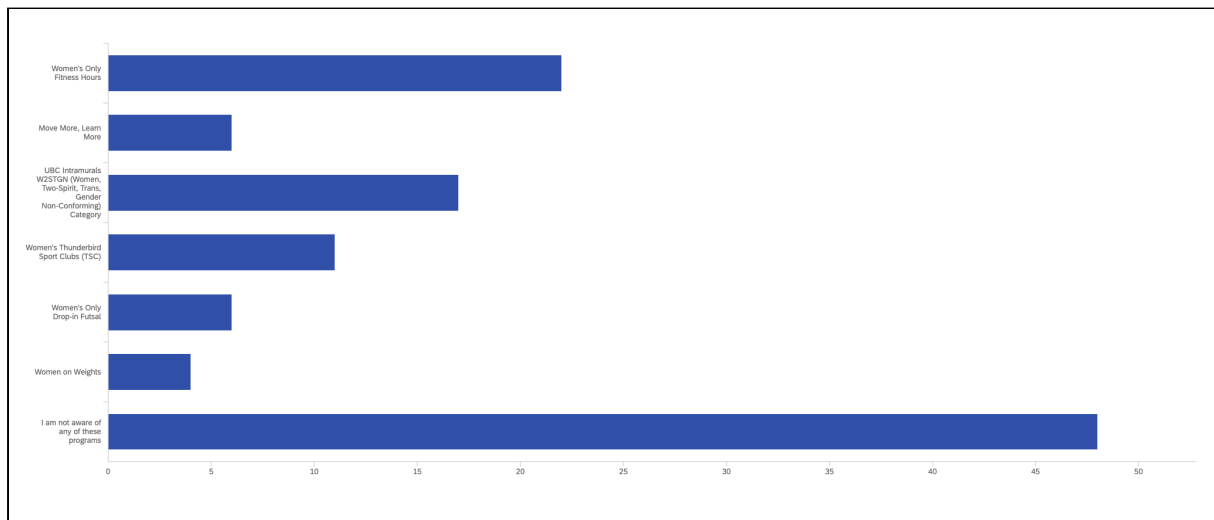


Figure 6: Awareness question

Q7: Have you participated in Women’s Only Program, if so which ones?

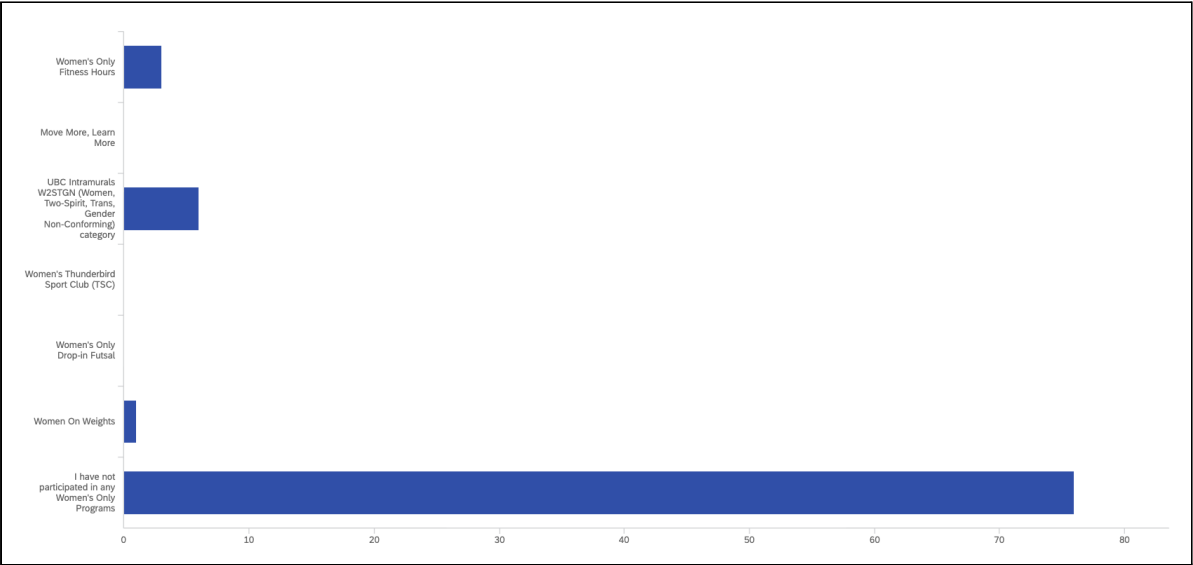


Figure 7: Participation

Q8: Where have you seen UBC Women’s Only programs being promoted?

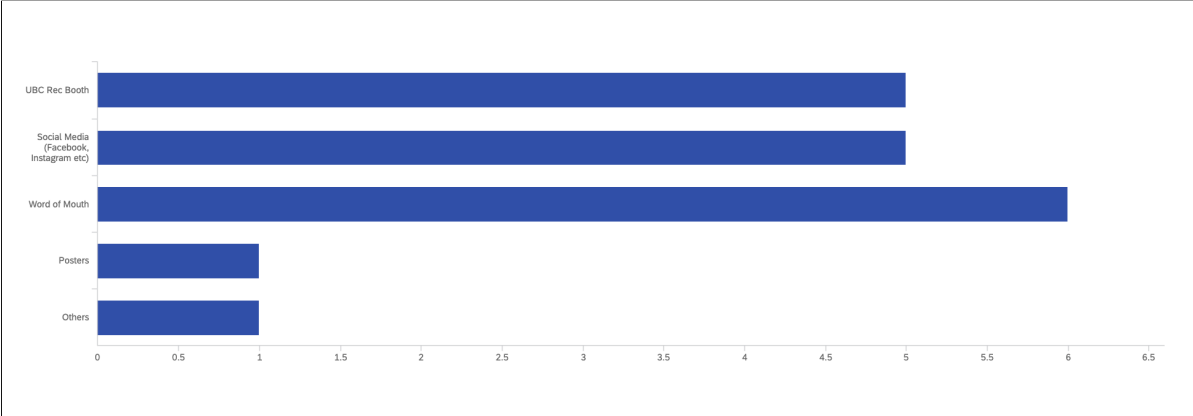


Figure 8: Promotion of Women’s Only Programs

Q9: The gym space is too small and or they lacked the equipment that I want

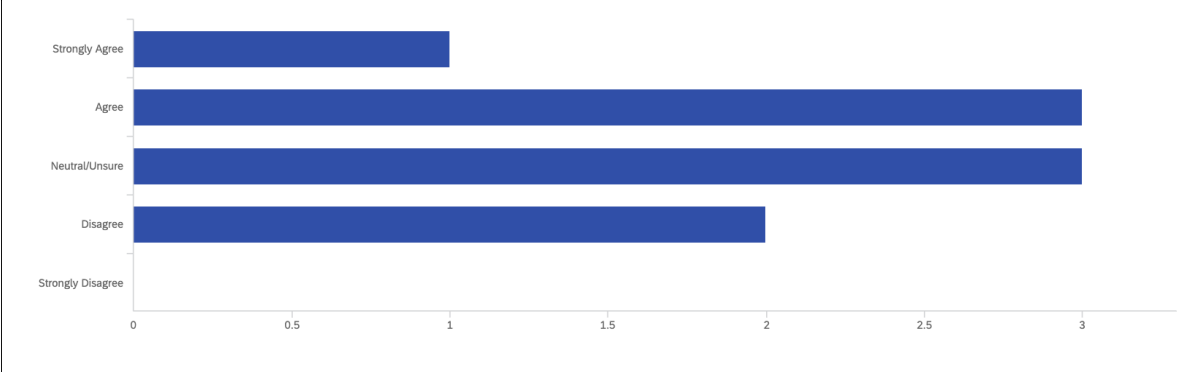


Figure 9: Gym space results for those who have participated

Q10: I am satisfied with the variety of Women’s Only Programs offered by UBC

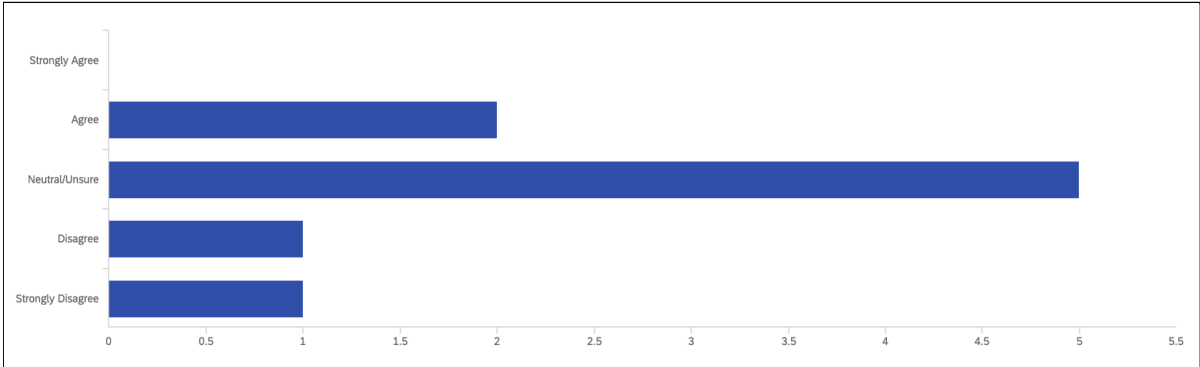


Figure 10: Satisfaction with the variety for those who have participated

Q11: I am satisfied with the quality of Women’s Only Programs offered by UBC

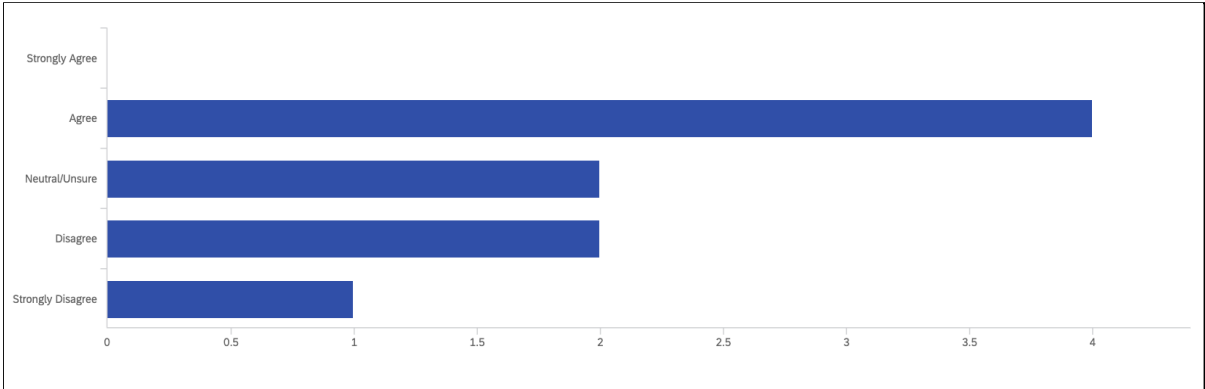


Figure 11: Satisfaction of the quality for those who have participated

Q12: I am satisfied with the hours that the Women’s Only Programs offers

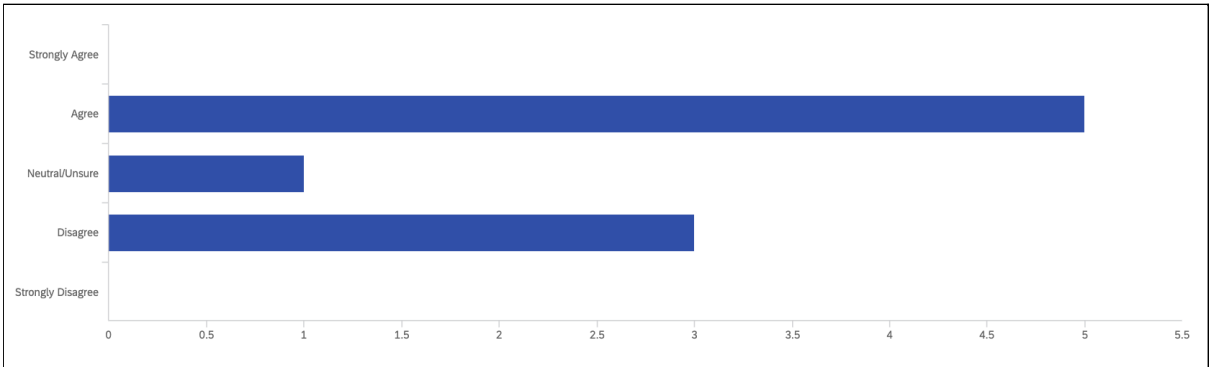


Figure 12: Satisfaction with the number of hours for Women’s Only Programs for those who participated

Q13: I feel more comfortable exercising in Women’s Only Programs compared to co-ed settings

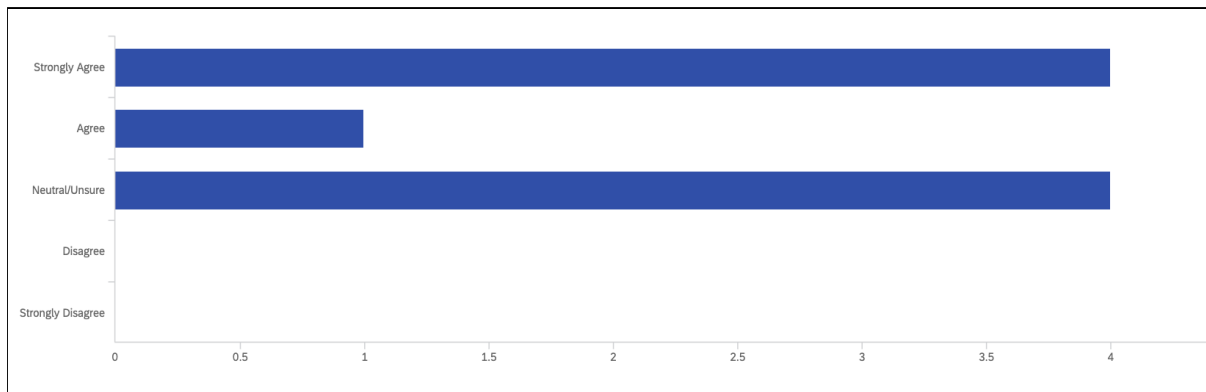


Figure 13: exercising in Women’s Only Program vs co-ed setting

Q14: I did not participate in Women’s Only Programs because I was not competent enough

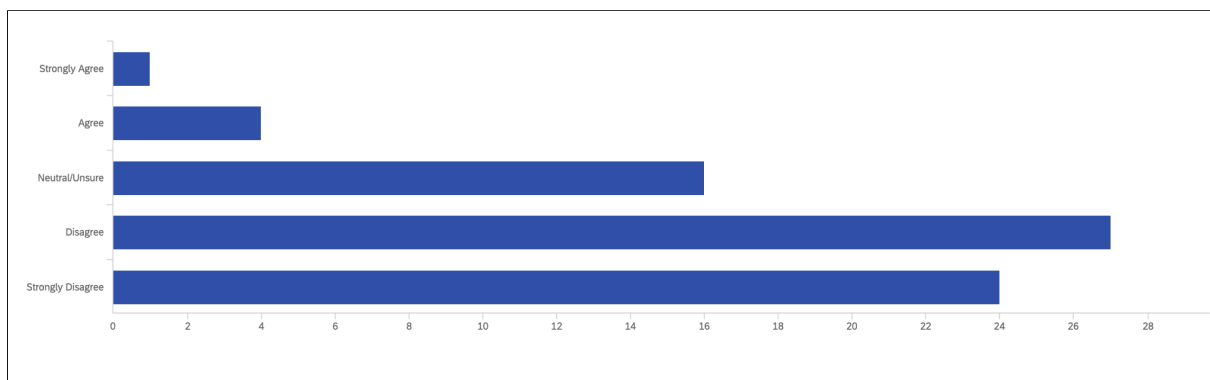


Figure 14: Competence for those who did not participate

Q15: I did not participate in Women’s Only Programs because I was not aware they existed

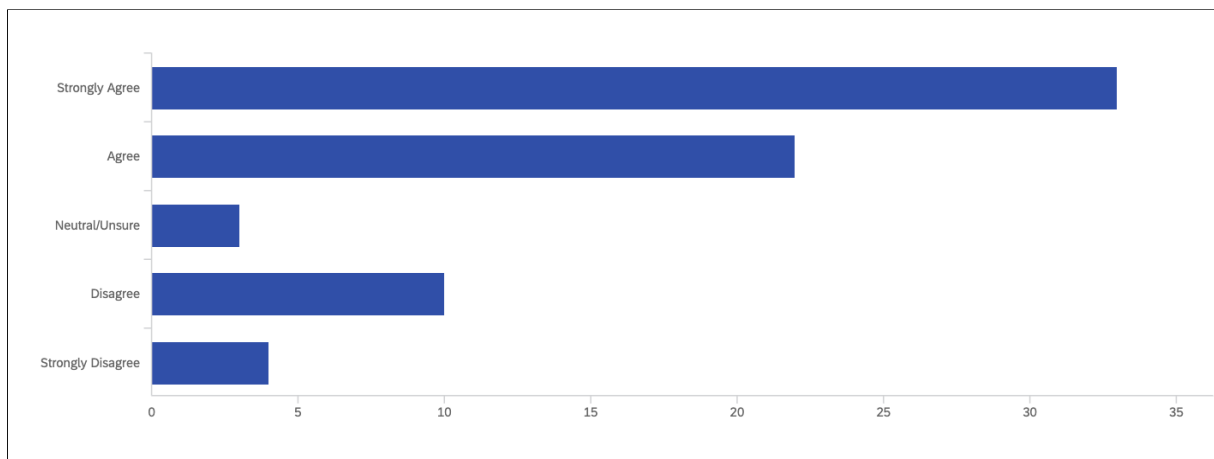


Figure 15: Not aware of programs for those who did not participate

Q16: I did not participate in Women's Only Program because the current programs do not interest me

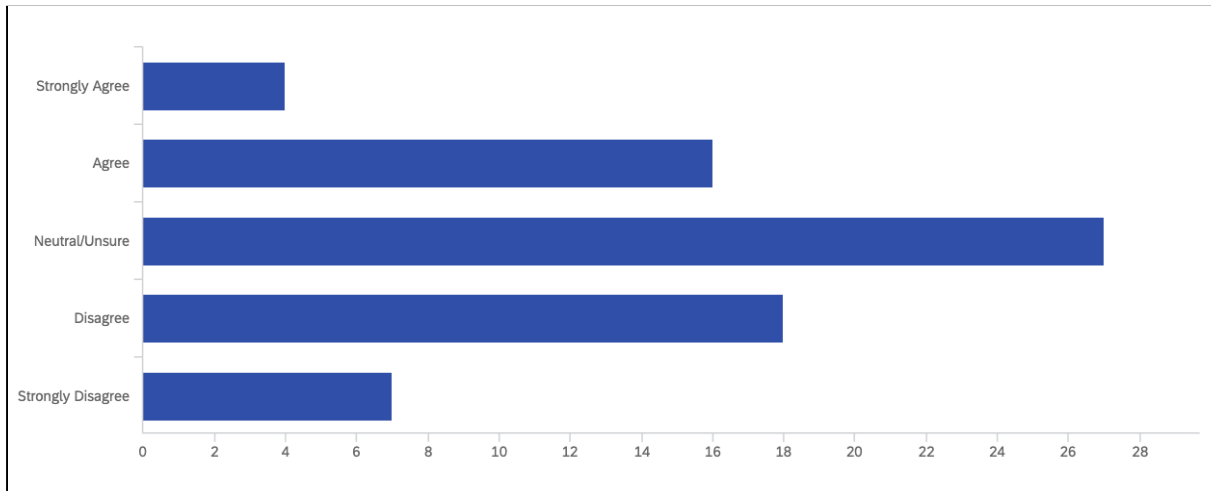


Figure 16: Interest in the current programs for those who did not participate

Q17: I did not participate in Women's only Programs because the gym space was too small

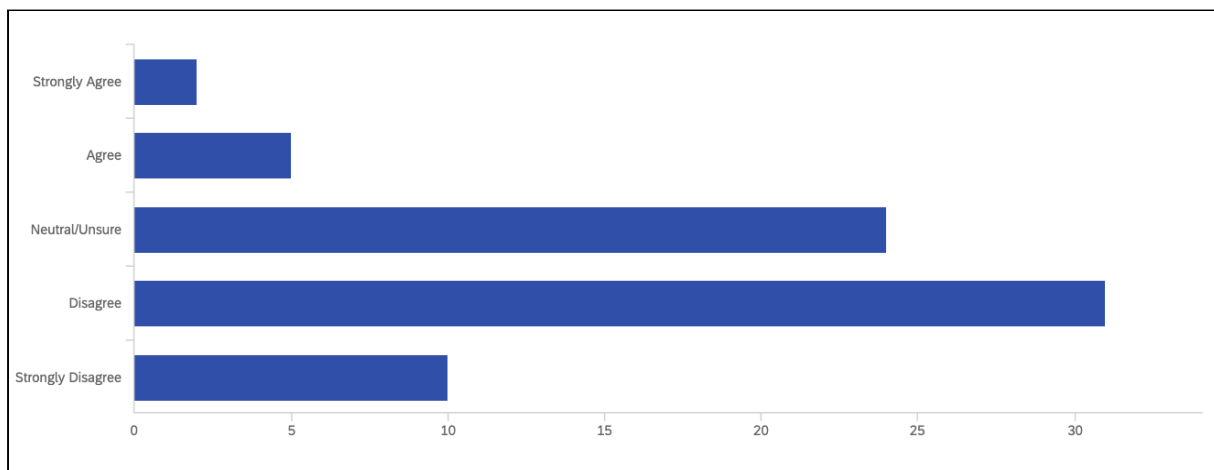


Figure 17: perception of gym space for those who did not participate



Q18: I did not participate in Women's Only Program because I am comfortable exercising in my current setting (i.e co-ed programs or off campus programs)

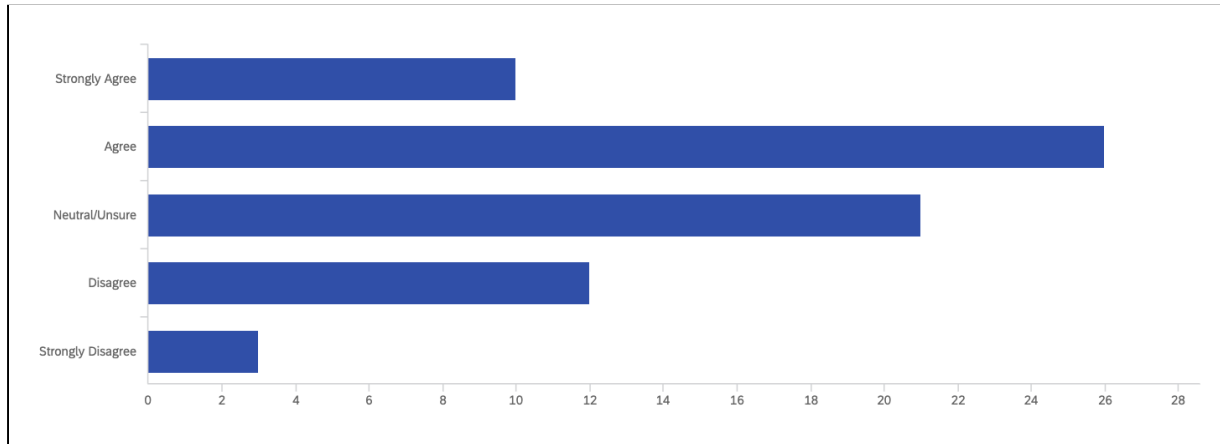


Figure 18: Comfortable in current setting for those who did not participate

Q19: I did not participate in Women's Only Program because the time slots did not work with my schedule

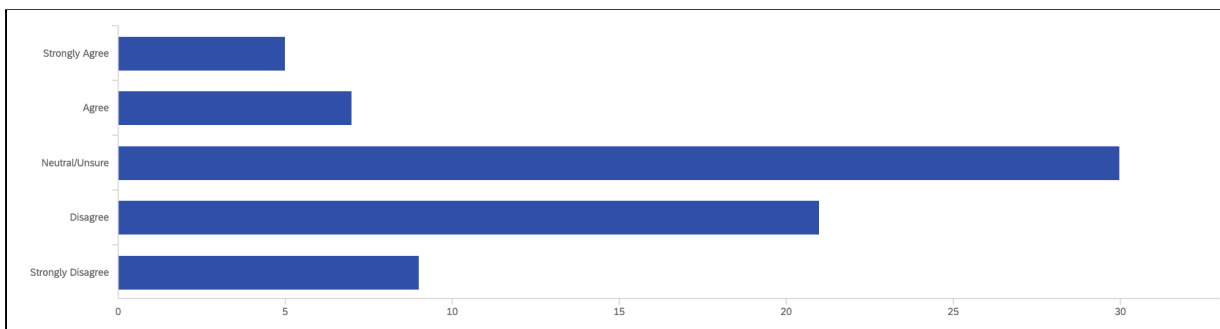


Figure 19: Time slots did not allow for participants to attend classes

Q20: Prior to COVID-19, UBC Recreation offered 6 Women's Only Programs, including Women's Only Fitness Hours, Move More, Learn More, UBC Intramural W2STGN Category, Women's TSC (Thunderbirds Sport Club), Women's Only Drop-in Futsal, Women on Weights. Select "Strongly Agree" if you have read this question completely.

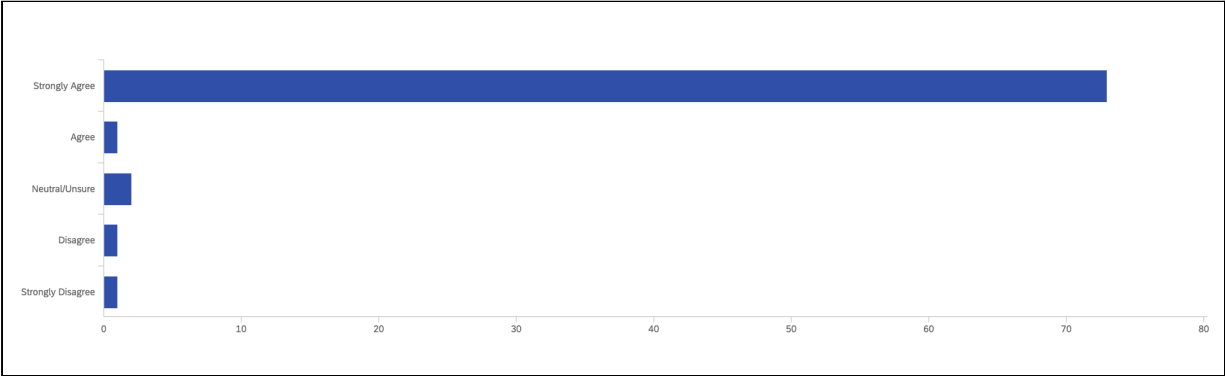


Figure 20: Reading Check

Q21: I would be interested in following a live guided workout in an online Women's Only format

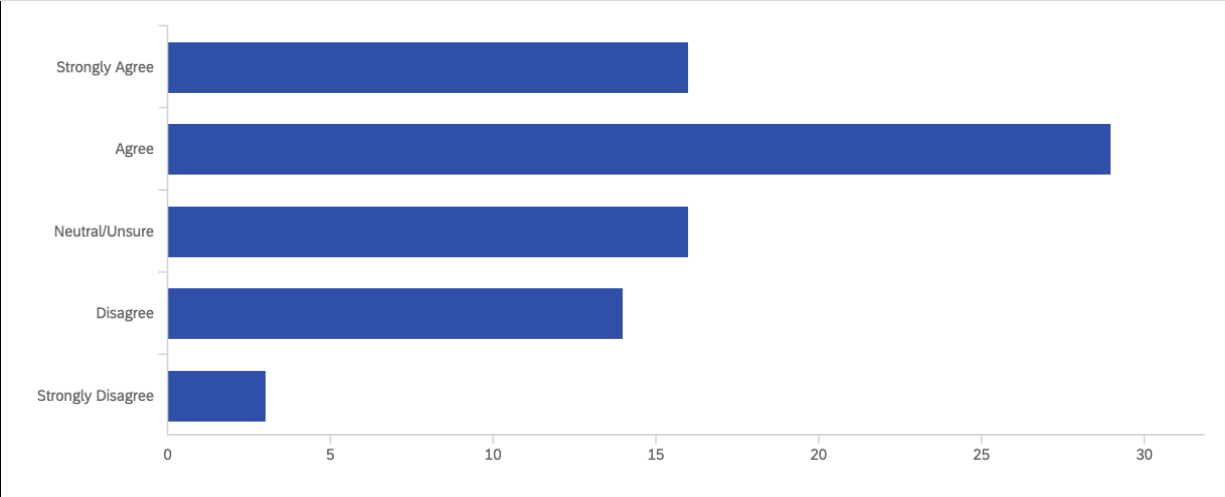


Figure 21: Interest in a live guided workout

Q22: I would be interested in participating in asynchronous guided workout in an online format

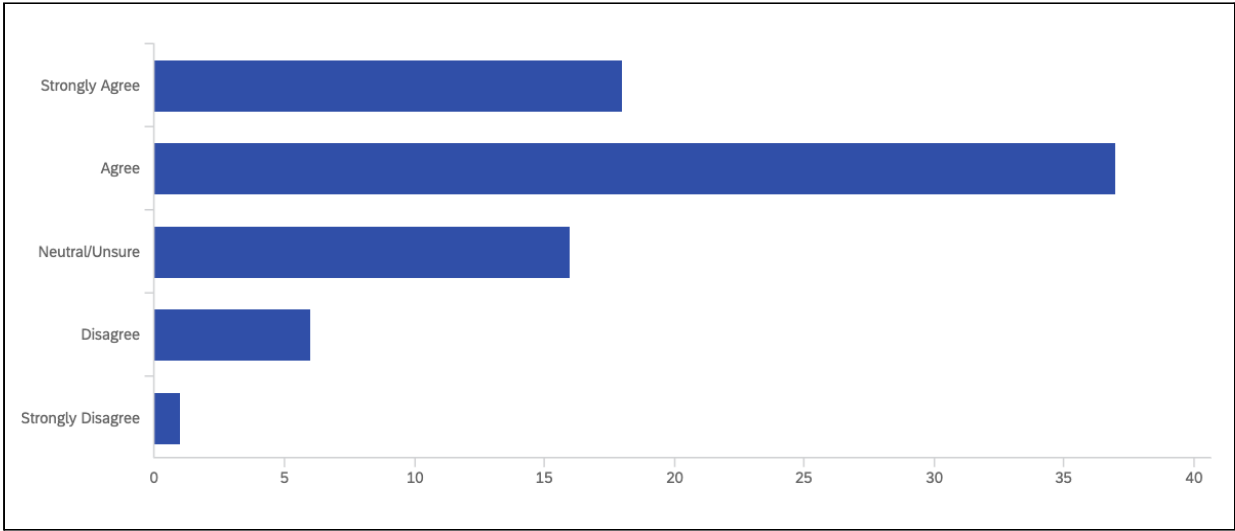


Figure 22: Interest in an asynchronous workout

Q23: I am interested in Women’s fitness challenges/team challenges in an in-person format

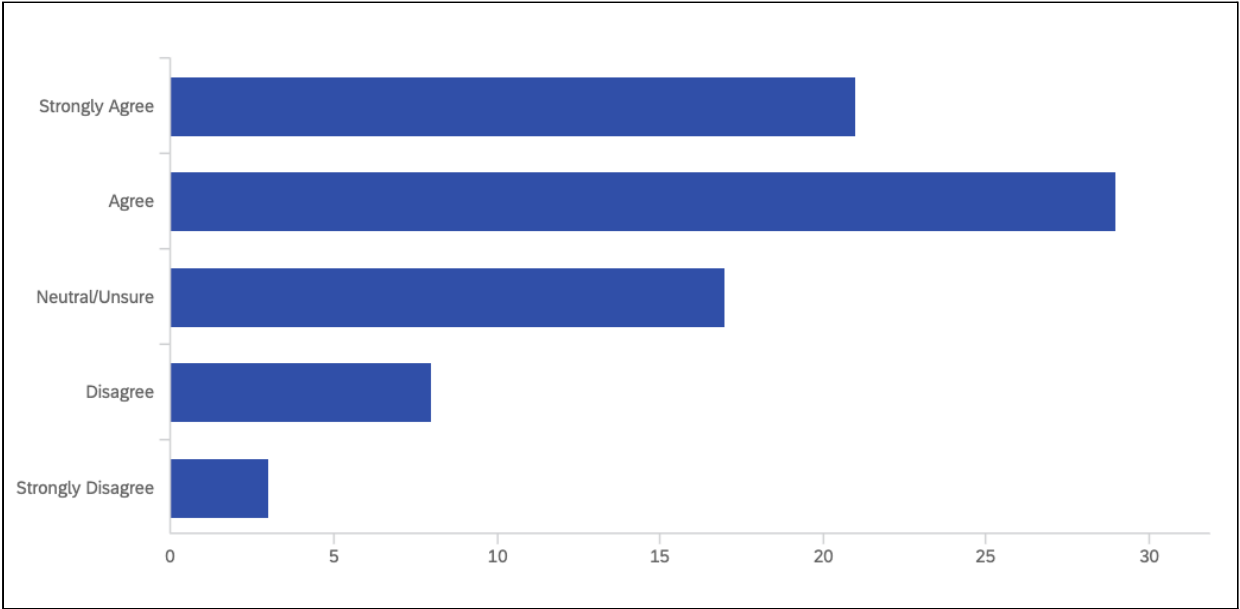


Figure 23: interested in fitness challenges/ team challenges

Q 24: I would feel more comfortable participating in Women’s Only Programs at UBC if the instructor of the program was a self-identified woman

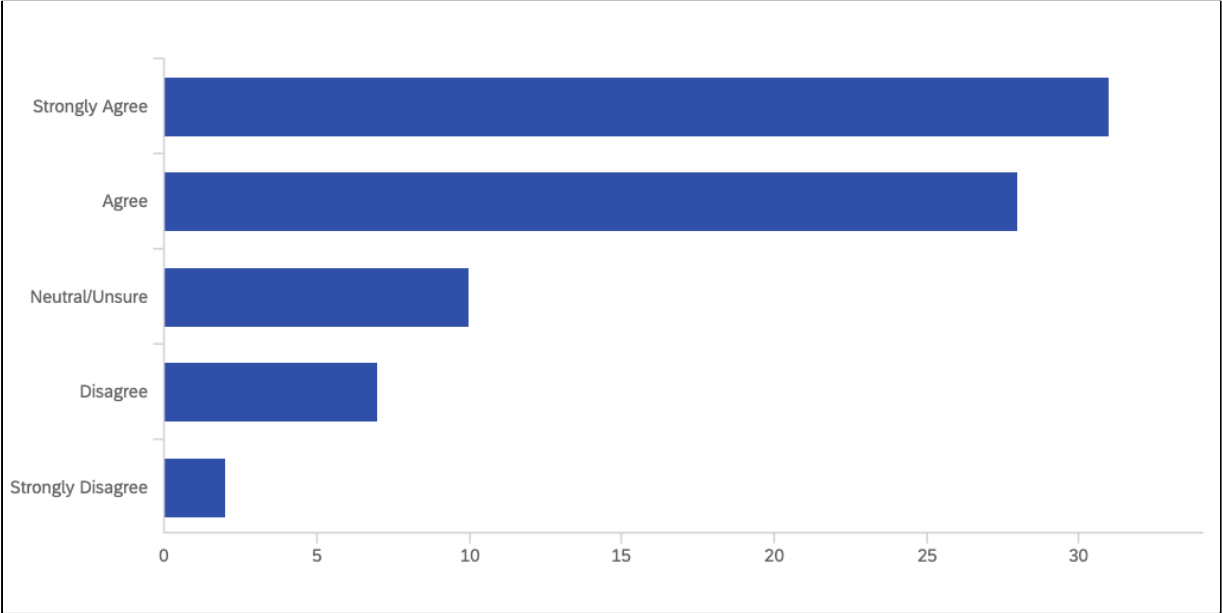


Figure 24: More comfortable with self-identified Women instructors

Q 25 : I believe Women’s Only Programs are important

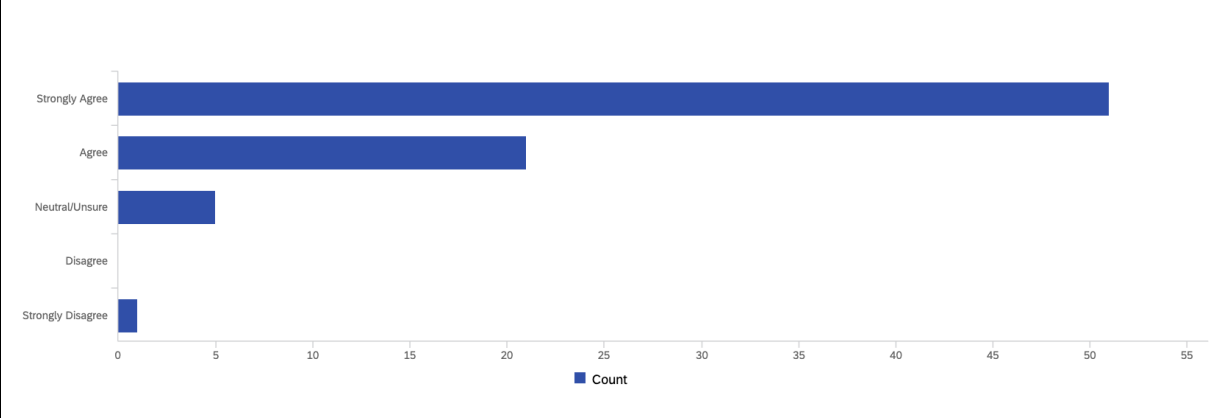


Figure 25: Perceived importance of Women’s Only Programs

Q26: Would a Women's Only gym facility interest you?

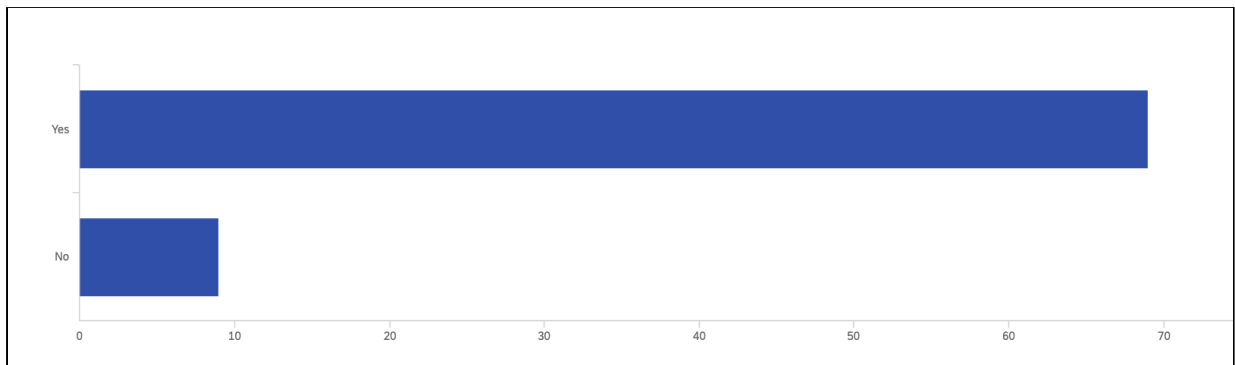


Figure 26: Interest in a gym facility

## Qualitative Questions:

Q27: Do you have any thoughts or comments on UBC Women's Only Programs that you would like to share, if not leave blank

i think they are not promoted enough, I was not aware of the existence of many of them

Women's Only Fitness Hours should give women access to full gym equipment and not be limited to what is in the studio.

I've actually taught classes for the move more learn more program many times, so my responses are all based as an instructor for one of these programs! I think it's amazing and super important!

I think they are super important. I HATE going to a co-ed gym.

I haven't heard much about them but they seem important.

I have noticed that although the UBC arc advertises women only hours it is not enforced and it does not seem any different than regular hours. The gym is equally busy and male participants are still in the gym during these hours.

As someone who transferred from another institution, it would be helpful to increase advertising to those who just joined UBC

A women's only gym would be AMAZING. I hate using the arc or bird coop because it's hard to get a turn on the machines because men hog them

Figure 27: Additional thoughts on UBC Women's Only Programs

Q28: Are there any additional activities or sports that you would like to see UBC Women's Only Program offer? If not, leave blank

Yoga
Basketball!
Boxing and kickboxing!!!
Biking?
Women's self-defense
Yoga!
Women's only yoga and boxing
soccer
zumba, spin, circuit or HIIT

Figure 28: Additional Sports/Activity recommendation

Q29: What are your reasons for participating in Women's Only Programs? (If you do not wish to answer, leave blank)

i was on a women's basketball team. I choose it because in co-rec settings, there are many males who are not cooperative and it takes away the fun of the sport
It felt more comfortable in some cases
Safety
Men bothering me in the gym

Figure 29: Reasons for participating in Women's Only Programs

Q30: Are there any additional reasons you did not participate in Women's Only Program (If not, leave blank)

Academic workload is high so I find it hard to make time for activities
Did not know they existed
I dont know enough about them
I like to workout with everyone not just woman
I was not aware of any
I was pregnant during the only time I was at UBC when classes were in person
I workout well on my own and I don't really care if there are men around
If it's in person, then it's a bit out of the way for me. Plus, Covid is still a thing.
In the summer of 2019 I tried to form a women's only soccer team to join the women's only intramurals soccer league, but was informed right before season started that I was the only team who had signed up for the women's only league, and that we thus had to quit or join the combined men and women's league
Insecurities and not enough time to participate in extra curriculars
N/a
Only knew of one program available
Wanted to participate in those activities with my male friends

Figure 30: Additional reasons for not participating