

UBC Social Ecological Economic Development Studies (SEEDS) Sustainability Program

Student Research Report

Program Evaluation of the Equity Enhancement Pilot Project

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Program Evaluation of the Equity Enhancement Pilot Project



Executive summary:

In a partnership with the Social Ecological Economic Development Studies (SEEDS), we will be evaluating the Recreation Gaps Program, which aims to increase physical activity amongst Chinese female students at UBC. To do so, we will be using the raw data from a survey provided by SEEDS. Some of the main barriers identified by the participants are insufficient time, lack of motivation and not being interested in the health topics and activities. The change in behaviours of subjects before and after participating show that the program was successful in imparting knowledge of new forms of physical activities but had difficulty improving the time management of participants. The program was also less successful at changing the lifestyle of participants in the long-term. Our recommendations are that future pilot programs for this population should focus more on offering long-term solutions and focus the actual content of the program on activities rather than lectures. More sessions should also be offered to increase the time flexibility of the program.

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Section

1

Introduction and Literature

Background:

According to the statistics from the UBC Annual Report on Enrolment of recent years, more than a third of the international students had Chinese citizenship (Redish & Mathieson, 2016). Despite making up a large portion of the student population, Chinese females in particular are much less active in UBC's recreation centres than other demographic counterparts (The Social Ecological Economic Development Studies Program, & Riazi, 2018). This is in agreeance with research by Unkel (2009), which indicates that females generally participate less than males in team sport and outdoor activities.

It is commonly known that physical activity has an effect on decreasing the risks of various chronic diseases such as cancer, diabetes and especially cardiovascular diseases but this also means that inactivity in Chinese females makes them twice as susceptible to heart diseases compared to physically active people (Cavill, Kahlmeier & Racioppi, 2006).

To address this, the Social Ecological Economic Development Studies (SEEDS) program is piloting a Recreation Gaps Program which aims to increase physical activity amongst Chinese female students at UBC by changing participants' behaviours. In partnership with them, this paper will be discussing the program findings as well as offering some recommendations to common barriers that restrict minority groups from engaging in

physical activities in UBC recreation. Some of the main barriers identified are insufficient time, lack of facilities, lack of knowledge and cultural differences. The change in behaviours of subjects before and after participating in the pilot program will be used to assess the effectiveness of the overall health promotion program. The participants' responses from the SEEDs pre-program and post-program surveys will serve as the basis for our discussion and recommendations.

Literature Review: Factors Preventing Participation in Recreational Activities

According to Tang, MacDougall, and Gasevic (2015), immigrants from different cultural backgrounds exhibited different changes in physical activity levels after immigrating to Canada. The authors focused on immigrants of three language sub-groups, English, French and Chinese, to compare their physical activity patterns before and after immigration and to discuss underlying reasons for those changes in lifestyle and health behaviours. Their research indicates that while all three groups showed a decrease in exercise level after immigration, Chinese immigrants had changed the most, dropping drastically in exercise level (Tang, MacDougall, & Gasevic, 2015). Similarly, Chinese graduate female international student in the United States have been reported as the one of the least physically active groups (Yan, & Cardinal, 2013). This trend of international students being less active can be attributed to various factors. International students tend to avoid activities that may put them in embarrassing or discriminating situations (Yan & Cardinal, 2010). Being in a different country can lead to emotional fluctuations caused by demographic changes, which prevent international students from engaging in situations that involve social interaction (Dipeolu, Kang, & Cooper, 2007). By limiting social interactions, it also sharply reduces their opportunities of participating in outdoor recreational exercises.

Other than the psychological and social reasons behind international students' lack of physical activity, they also often lack knowledge about the health benefits and struggle to adjust to the new environment. According to an interview by Taylor et al. (2008) on Chinese immigrants studying in ESL programs in Canada and the United States, there were a number of recurrent themes in terms of barriers. Other than feeling a lack of time due to the Chinese emphasis on education being more important than fitness, participants also felt a lack of information regarding where to find facilities to continue with the physical activity routines they had in China (Yan & Cardinal, 2009). Another large barrier is the limited amount of organized activities for Chinese people. There is a shortage of familiar physical activities that use the Chinese language and are culturally significant, which is what deters participants from joining any at all (Taylor et al., 2008).

Previous Fitness Programs Targeting Chinese Population

There appears to be a limited amount of organized activities for Chinese people and previously created programs were often confined to a narrow age group, all targeting older populations. Such programs can be found in local Chinese Associations and an example of this is the Calgary Chinese Elderly Citizens' Association. They provide general physical fitness programs such as an exercise class, where the main objectives are to promote an interest in physical activity as well as to create culturally relevant fitness programs such as the Lion Dance (The Calgary Chinese Elderly Citizens' Association, 2019). Launching such fitness programs in an already established Chinese community allows the population to try new activities without the fear of a generational gap or culture shock.

Other than fitness programs, there was a study about developing an ESL curriculum to educate Chinese immigrants on physical activity (Taylor et al., 2008). After discovering

that most of the barriers stem from the participants' lack of knowledge on Canadian and American physical activity guidelines and unfamiliarity to the facilities provided, the study developed an ESL program that incorporated physical activity information into the language programs. Matching games were made where ESL students work together to match health related words to their correlating definition. The knowledge gap was addressed through a variety of ways such as creating advice cards, discussions, and jigsaw exercises. In the case of the jigsaw exercise, ESL students were provided with an excerpt about health and required to relay the information to their peers. Once all the students were taught the material, the information was reviewed in class (Taylor et al., 2008).

Section

2

Rationale

There is an ongoing trend that the Chinese female student population engages in less recreational and athletic activities compared to other ethnic communities (Yan, & Cardinal, 2013). Making up a third of the university population, Chinese female students were an easily accessible minority population, increasing the chances of participant recruitment for the health program (Redish & Mathieson, 2016). Studying this population allowed for understanding on how barriers, such as environmental changes and social isolation, faced by a minority group would deter the population from exploring recreational options that would be suitable for them (Dipeolu, Kang, & Cooper, 2007). A study by Frisby et al. (2009) has shown that participants expressed enthusiasm in the continuation of physical activities before

moving to Canada, which indicated that the lack of participation was not entirely due to an indifference towards their health but due to an absence of information on the opportunities that are available to them. The findings of the study are especially relevant in the case of international students who have to navigate a new environment.

An evaluation into the effectiveness of the health promotion program on Chinese female students can provide information on how to encourage larger portions of an underrepresented population to participate in physical activity programs on campus.

Section

3

Population and Sampling Frame

The population of interest is Chinese female students participating in a health promotion program launched by the UBC Department of Athletics and Recreation (The Social Ecological Economic Development Studies Program, & Riazi, 2018). Due to the specific nature of the program, there was a small number of participants making population sampling possible. A total of twenty participants answered SEEDS' pre-program reports and twelve participants answered the post-program reports.

Section

4

Methods

The research portion was intended to be conducted through the use of a survey to assess the physical activity levels and knowledge changes of Chinese females who participated in the Pilot Program. The survey was made available after the program to ensure that all participants are informed and given the opportunity to participate. Using features such as semantic differential scales and multiple choice, questions targeted changes in physical activity level before and after the program. The questions also addressed what barriers participants' felt were the most relevant to them as well as strategies learnt to overcome the various barriers. The aim of the questionnaire was to examine the knowledge level of participants in the pilot program, the barriers they faced and whether the program helped them overcome the barriers and increase their physical activity rate.

Consent forms were included at the beginning of our survey and the full survey was made available online through Qualtrics, an online survey service (refer to Appendix A and B). Both the consent form and the survey were offered in English but due to the untimely distribution of surveys solely through social media, there was an inadequacy in response rate with only one person responding. Instead, we were permitted to use the raw data from SEEDS' surveys. Unlike our initial survey (refer to Appendix B), hard copies of SEEDS' surveys (refer to Appendix C and D) were distributed to the participants in person before the start of the program and during the reflection period of the last session. Additionally, due to

the fact that not all participants went to the last program session, SEEDS also sent the post-survey through email.

While there was a significant overlap between the aim of their questionnaire and our initial survey, it should be noted that SEEDS also covered a wider range of topics such as mental health and sleep cycle (SEEDS, 2019). Other than looking at barriers faced by Chinese students, SEEDS also investigated comfortability and knowledge of healthy lifestyle choices before and after the program. Their survey format was also very similar; semantic differential scales were used to assess participants' knowledge and comfort level on a variety of topics and multiple answer questions allowed for the assessment of benefits and barriers (SEEDS, 2019). However, SEEDS' survey also had two open-ended questions examining time spent on physical activities and any further remarks from the participants. Our analysis of SEEDS' survey will focus solely on the effect of the program on participants' understanding of physical activity, knowledge against barriers and their activity level that was reported in the surveys, since those are the questions that corresponded with our initial aim.

Section

5

Analysis of Data

Data collected from participants regarding their knowledge and comfort level before and after the program will be used to understand and analyze the effectiveness of the program

in overcoming barriers. Due to the mixed nature of the survey questions, there are three approaches to analyzing the data depending on the characteristics of the question. For questions involving semantic differential scales, used in questions one and two (refer to Appendix C and D), bar graphs and descriptive statistics were used to visualize the general opinion of each question. Certain topics of importance in our original aim was also averaged and compared. The topics that were chosen for calculation were: current opportunities to be active offered by UBC Recreation, strength and circuit-based training and time management strategies to fit healthy behaviours into your schedule.

On the first question (refer to Appendix C and D), other than the bar graph, an average score of all the topics combined was used to compare the participants' knowledge level before and after the program. A score below two represented a low level of knowledge and a score higher than two indicated a higher level of knowledge. Similarly an average of all the scores was taken from question two of SEEDS' survey (refer to Appendix C and D) and indicated the comfort level of participants when performing healthy habits. A score below two represented a low comfort level while a score above two represented a high comfort level. The topics that were chosen for statistical analysis in question two were: comfort of participating in physical activity, comfort with strength and circuit-based training and ability to manage your time.

In question three, the average of the scores from the pre-program and post-program surveys allowed for comparison between the duration of physical activity per week before the program and after the program. Lastly, question four in the pre-program survey and questions five and six in the post-program survey involved participants stating their opinion on a subject through the use of multiple answer questions (refer to Appendix C and D). The

number of times each of the options were chosen were tallied up and summarized in a frequency table. The percentage of how many times the topic was chosen was generated and analyzed in the form of a pie chart. For example, in question five on the post-program survey, the pie chart allowed for understanding of the greatest benefits to participation.

Section 6

Findings and Discussion

According to the analysis, there was an increase in knowledge and comfort level across the spectrum. Based on data from the semantic differential scale, overall knowledge increased from 2.68 to 3.45 on average after the program.

This suggests that participants came into the program with “little” to “good” knowledge and came out of the program

with “better than good”

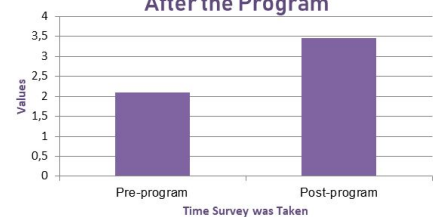
knowledge about physical activity. More specifically, the

program appeared to be most effective at increasing knowledge and comfort in strength and circuit training (with an 1.35 and

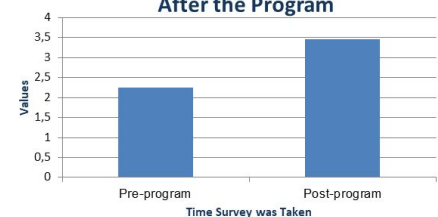
1.11 increase of average value on the scale respectively). This

suggests that the program effectively introduced participants

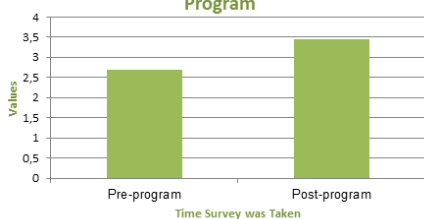
Knowledge Level on Strength and Circuit Training Before and After the Program



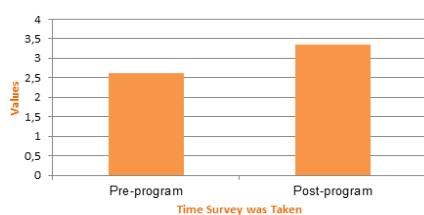
Comfort Level with Strength and Circuit-Based Training Before and After the Program



Overall Knowledge Level of Participants Before and After the Program

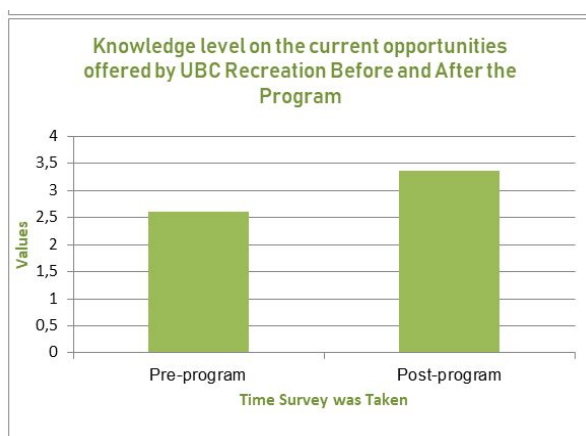


Overall Comfort Level Before and After the Program



who often had little prior knowledge (2.10 on scale) to a new form of physical activity and gave them “good” to “excellent” knowledge levels on strength and circuit training (3.45 on scale). The participants also came out of the program with “good” comfort on performing these newly learnt activities (an average of 3.73) based on post-program surveys.

However, Table 1 showed us that the program was less effective in improving areas such as knowledge of current physical activity opportunities and comfort level in



participating in physical activity. Even though the program did increase participants’ knowledge of opportunities on campus (by 0.76), on average, the participants already had good knowledge of what was available on campus. The participants did not have any significant

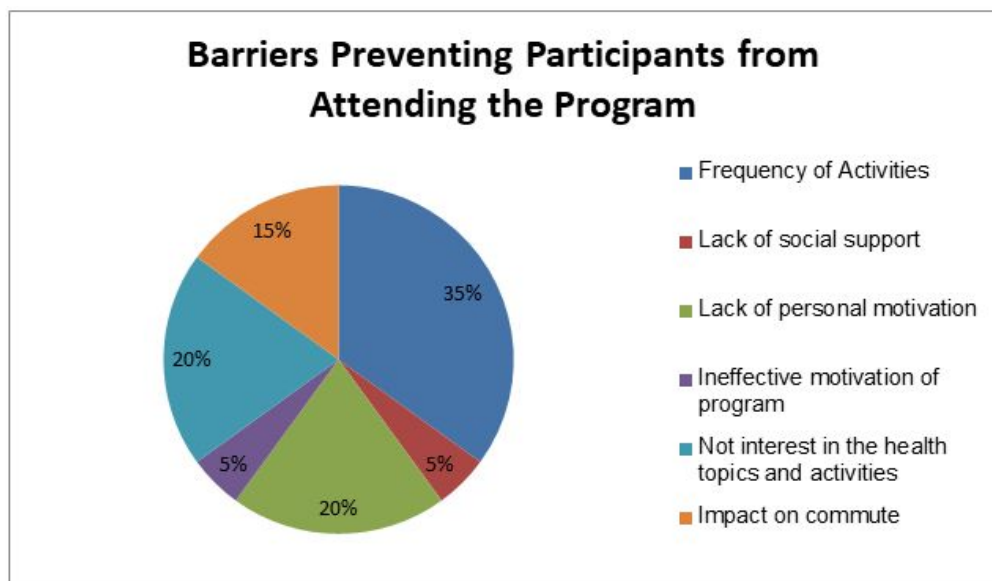
discoveries in the opportunities provided by UBC (refer to Table 1). More importantly, the pilot program was the most ineffective at increasing the participants’ comfort level in joining physical activity (with the lowest increase of 0.68 value). However that is because

Average results in selected topics

TOPIC	AVERAGE		
	Pre-program survey	Post-program survey	Difference
<i>Knowledge Level...</i>			
Overall knowledge level	2.68	3.45	0.77
... on the current opportunities offered by UBC Recreation	2.60	3.36	0.76
... on strength and circuit training	2.10	3.45	1.35
... on time management strategies to fit health behaviours into schedule	2.30	3.41	1.11
<i>Comfort Level...</i>			
Overall comfort level	2.61	3.35	0.74
... in participating in physical activity	3.05	3.73	0.68
Comfort level with strength and circuit-based training	2.25	3.36	1.11
... in the ability to manage time to fit physical activity into weekly schedule	2.25	3.18	0.93
Duration of time spent or intended to spend on moderate to vigorous activity in a week	2.43 hours	3.73 hours	1.3 hour

participants, with an average score of 3.05, were already very comfortable with engaging in physical activity at the start of the program.

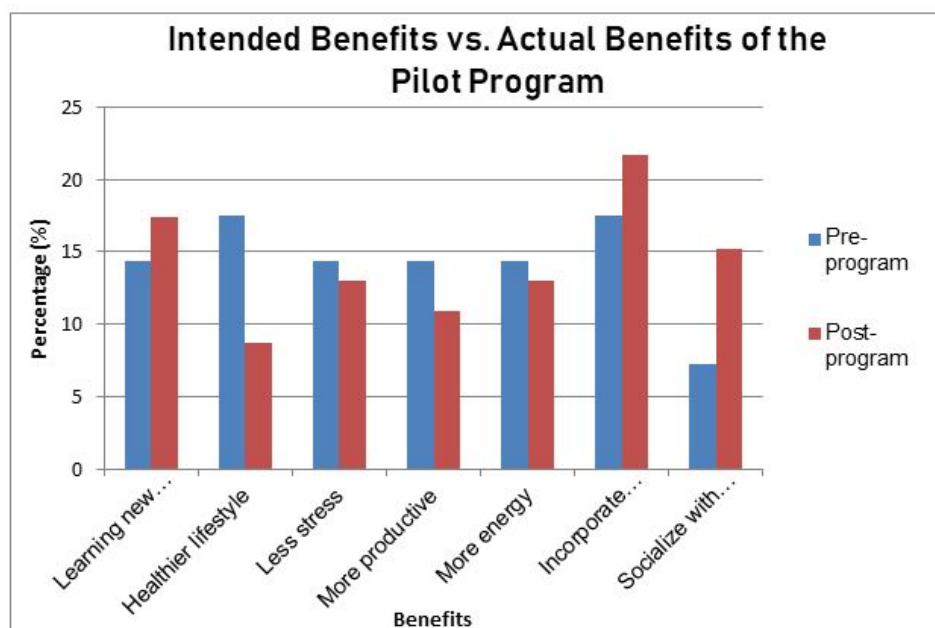
At 35%, timing is the largest barrier to participation and was often scored low in. Even though the program had a great impact on incorporating activities into the week, increasing the duration intended of exercise by 1.3 hour per week compared to the duration of time spent exercising before the program, lack of time is still a problem. In both the pre and post program survey, time management was the category with the lower averages and also the one that the participants felt the least comfortable in their abilities to manage (SEEDS, 2019). Even for this pilot program, the main reason for the infrequency of participation is due to the timing of the activities.



As the target population of the Pilot program, Chinese students may weigh academic achievements more than physical health. This is because traditional Chinese education values academic achievements over physical health and extracurricular activities (Chen, 2016 & Hu et al., 2016). Therefore, when students are under academic pressure and burdened by exams and deadlines, they are more likely to neglect participating in physical activities to study.

Hence, the inflexible class schedules of the SEEDS pilot program kept some students from being able to participate. Another challenge that is frequently mentioned is that people lack personal motivation and interest in the program. Even though SEEDS provided detailed information about the project, the information on the Pilot program itself was quite vague. The lack of information on what the program was about made it hard for people to decide whether or not they wanted to attend.

Other than that, the effectiveness of the program was examined through the discrepancies between the intended benefits and the actual benefits of the program. In terms of the positive effects of the program, being able to socialize with other participants came as an unexpected benefit, while an expected benefit that the program did well on was helping participants incorporate health and wellbeing into their daily routines (SEEDS, 2019). Other than that, the bar graph below also includes the intended benefits of the program that were not fully achieved by everyone. These include leading a healthier lifestyle, having less stress, being more productive and having more energy. Therefore, even though a lot of the participants perceived that the program helped them with the initial steps of incorporating health and wellbeing into their daily life, the program was lacked at motivating subjects to continue working towards a healthy lifestyle in the long run even though that was one the benefits participants wanted out of the program.



Section

7

Limitations and Challenges

The main factors that affected the quality and accuracy of data analysis are the small sample size due to the limited number of participants, the validity of the survey questions and the participation bias. As the initial survey was published online the day after the program ended, participants may not have felt the need to respond or may not have seen it at all. This is why our survey only had one response from a participant in the population. Due to the inability to physically reach participants after the program ended, data from SEEDS, who did distribute the forms in a physical format, was used. SEEDS' survey questions were similar enough that the original objective and aim of the study remained the same. However, that does not mean that SEEDS' sample size was large enough to determine a causal relationship. With a sample size of twenty people in the pre-program and twelve people in the post-program survey, the lack of responders significantly decreases the external validity of the study and causes difficulties making generalizations.

Another challenge was the validity of survey due to the use of leading questions. These refer to inquiries that push people to answer in a certain way based on how the question was worded and affects the validity or the accuracy of participants' responses (Reeve, 2017). For example, questions that say "Importance of having a healthy and balanced diet" assumes that having a balanced diet is important and good for your health (Schade, 2017). Instead, future survey questions should be modified to eliminate assumptions of

experiences. A better phrasing of such a question would be “What is your knowledge on diets and its effects on health?”. This modification prevents people from feeling pressured to lie due to the embarrassment of not knowing the impact diet has on health. This can be seen in a study by Freedman, Aykan and Kleban (2003), where the researchers found that 8.2% more participants reported having functional limitations when asked how much difficulty they had with the task compared to being asked if they had any difficulty.

Lastly, in a voluntary setting, participation bias can occur because people are more likely to volunteer in studies that are relevant to them (Tam, Higgins, & Rodrigues, 2011). This can be an indication that participants have stronger opinions on the topic, skewing the results toward extreme ends. While the survey was distributed to everyone in the program and there were no volunteers, this does not eliminate the prospect of participation bias. Since we are only allowed to survey people within the program, their opinions are still likely to be stronger than the opinions of Chinese females who did not choose to participate in the program. This is another reason why it is difficult to generalize the findings of this study to the broad population of Chinese female students at UBC.

Section

8

Recommendations

According to the findings that were discussed in section 6, there are a few areas of the program that could be improved upon. This includes the program’s incorporation of long-term health strategies, time management and engagement to motivate participants.

Incorporation of Long-term Health Strategies

From the graph of expected and actual benefits, it was found that one of the things a lot of participants wanted out of the program was to lead a healthier lifestyle. However, the post-program survey indicated that a large percentage of the participants did not perceive that benefit. This is why future recreation gap programs need to promote skills and recommendations on ways to lead a healthier lifestyle in the long-term. In order to achieve this, the program should not only provide strategies to become healthier on a daily basis but also on a seasonal basis with the focus on staying through a lifespan. Incorporation of strategies on how to stay healthy during busy milestones such as graduating, periods of job search or child rearing would help participants stay on course despite life's difficulties.

Time Management

There were two time management problems in the pilot program. One is the difficulty of making time for the program itself and the other is the program's guidance in helping participants incorporate physical activity into their life on a daily basis.

In terms of time management problems in the program itself, programs should incorporate flexibility in the schedules by increasing the number of drop-in sessions within the week that introduce different types of physical activity each week. Sessions can also be condensed to prevent the program from being too time consuming. To do so, educational information and lectures can be placed online to reduce the amount of time spent on lectures in sessions. It also gives participants a chance to look over the materials at their own comfort and revisit it when needed.

In terms of helping participants incorporate physical activity into their daily life, the program can be further improved by having a forum or discussion time where the participants

develop possible strategies on top of the ones given by the program. One way to facilitate this conversation is to develop a 10 minute post-workout discussion such as the one found in the ESL curriculum developed by Taylor et al. (2008). A hypothetical prompt about time constraints can be given to the participants and conversations of strategies and experiences based on the prompt can lead to creative and personalized solutions to the issue.

Engagement to Motivate Participants

Another barrier that was stated was the participants' lack of interest in the content of the program. To address the issue, there should be less health education in lecture format during each activity session. The program should shift the focus to actually increasing physical activity level. This can be achieved by providing participants with diverse fitness classes and flexible outdoor activities to encourage them to exercise on a daily basis. Instead of explaining, providing the participants with more opportunities to get involved in physical exercise may lead to more proactive and productive results. Additionally, incorporating culturally relevant sports or physical programs such a form of dancing or badminton like the ones found in Calgary Chinese Elderly Citizens' Association could further incentivize participants (The Calgary Chinese Elderly Citizens' Association, 2019). Incorporating these culturally relevant activities could reduce culture shock and shorten the adaptation period for international participants. It may also serve as motivation for domestic students who want to reconnect with their heritage.

Section

9

Conclusion

Like many other subgroups, Chinese female students face numerous barriers that prevent them from participating in physical activity. With the added fact that physical activity is not emphasized in Chinese culture, they have become one of the least physically active groups in UBC (Yan & Cardinal, 2009). The pilot program is a much-needed step in helping this population engage in a healthier lifestyle. Overall, the program was very successful in increasing knowledge in numerous different topics such as opportunities available and new forms of exercises. Intended duration of exercise also went up by an entire day. However, through data collection it was found that there were multiple things that could be addressed to enhance the program. By making future programs more time manageable, culturally relevant and incorporating good long-term strategies, the results of the analysis show promise that Chinese Female students will continue to be physically active throughout their lifetime.

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Appendices

Appendix A. Consent Form for Participation

KIN 464: Health Promotion and Physical Activity Participant Consent Form for Program Evaluation for the Equity Enhancement Fund Pilot Project

Principal Investigator: Negin Riazi

Research Asisstants: Group of KIN 464 students

The purpose of the class project: The purpose of the project is to evaluate participants' satisfaction on the pilot program about health promotion. Study Procedures: Participants who agree to partake in the evaluation are asked to fill out a five to ten minutes long survey about their contentment with the pilot program. The survey will be available in both hard copies around the program proximity and online through google forms. Information gathered will be used to critically examine the effectiveness of the pilot program in the promotion of health.

Project outcomes: The information gathered from interview questions will be part of a written report for the class project. The written report will be shared with the community 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. 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 filling out this survey. However, the interview will provide you with the opportunity to voice your opinion health promotion pilot program, shaping future health promotion programs targeting specific demographics, and will provide the students with an opportunity to learn from your experiences. Confidentiality: Maintaining the confidentiality of the participants involved in a survey questionnaire is paramount, and no names will be asked for. At the completion of the course, all data (i.e. answers to survey questions) and signed consent forms will be kept in a locked filing cabinet in Negin Riazi's office in the Population Physical Activity Lab (2259 Lower Mall) at the University of British Columbia. 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. Although there is a schedule of questions, the participant is free to share what they would like, including refusing to answer specific questions. You should know that your participation is completely voluntary and you are free to withdraw from answering the survey questionnaire at any point 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 Negin Riazi by phone at 604-822-5288 or by email at negin.riazi@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 . 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. Your selection below indicates that you have read and understood this consent form and that you consent to participate in this study. For your own records, take a screenshot of this page.

- I consent, begin the study (1)
- I do not consent, I do not wish to participate (2)

Appendix B. Move More, Learn More Assessment Survey

Q1 How many days per week did you exercise (engage in moderate-to-vigorous physical activity) before you attended the Pilot Program?

0 1 2 3 4 5 6 7

Number of Days ()	
-------------------	--

Q2 How many days per week do you intend to exercise (engage in moderate-to-vigorous physical activity) after participating in the program?

0 1 2 3 4 5 6 7

Number of Days ()	
-------------------	--

Q3 How likely are you to engage in a new physical activity before and after the program?

	Extremely likely (1)	Somewhat likely (2)	Neither likely nor unlikely (3)	Somewhat unlikely (4)	Extremely unlikely (5)
Engagement before program (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Engagement after program (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4 In your opinion, what are the barriers that prevent you from engaging in physical activity? (pick one or more)

Insufficient Time (1)

- Lack of Accessible Facilities (2)**
- Lack of Knowledge (3)**
- Intimidated by New Environment (4)**
- Other (5) _____**

Q5 Did you learn any skills from this program to overcome these barriers? If yes, what are they? (pick one or more)

- New Forms of Physical Activities (1)**
- Ability to Find Physical Activities (2)**
- Communication Skills (3)**
- Time Management Skills (4)**
- Other (5) _____**

Q6 How useful is the knowledge you gained from attending this program. (1 being not at all useful outside the program; 3 being sometimes useful outside of the program; 5 being very useful outside the program)

	Extremely unuseful (1)	Somewhat unuseful (2)	Moderately useful (3)	Somewhat useful (4)	Extremely useful (5)

Usefulness of skills learnt (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Q7 How aware are you of the benefits of physical activity?

	Extremely unaware (1)	Somewhat unaware (2)	Moderately aware (3)	Somewhat aware (4)	Extremely aware (5)
Awareness of benefits (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8 How confident are you in engaging in physical activity before and after the program?

	Extremely unconfident (1)	Somewhat unconfident (2)	Neutral (3)	Somewhat confident (4)	Extremely confident (5)
Confidence level before program (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Confidence level after program (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q9 How likely are you to recommend this program?

	Extremely unlikely (1)	Somewhat unlikely (2)	Moderately likely (3)	Somewhat likely (4)	Extreme likely (5)
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Click to
write
Choice 1
(1)

Q10 Are you an international or domestic student?

- International student (1)**
- Domestic student (2)**
- Transfer student (3)**
- Other (4)** _____

Q11 What are your recommendations if this program were to be run again?

Q12 Additional Questions or Comments

Appendix C. SEEDS' Pre-Program Survey

Move More, Learn More: Pre-Program Survey

Last 4 digits of your student number: _____

All information provided will be kept confidential and will not be used to identify you. Your input is important to improve UBC Recreation programs and create more opportunities that encourage people to choose active and healthy lifestyles.

1. On the scale below, please indicate your current level of knowledge on the topics below. 1 = no knowledge and 4 = excellent knowledge.

Topic	Knowledge			
	None	Little	Good	Excellent
Current opportunities to be active offered by UBC Recreation	1	2	3	4
The influence that physical activity has on mental health	1	2	3	4
Importance of having a healthy and balanced diet	1	2	3	4

Strength and circuit-based training	1	2	3	4
Time management strategies to fit health behaviours into your schedule	1	2	3	4
The impact physical activity has on your stress levels and sleep	1	2	3	4

2. On the scale below, please indicate your current level of comfort or ability on the topics below. 1 = no comfort/ability and 4 = excellent comfort/ability.

Topic	Comfort/Ability			
	None	Little	Good	Excellent
Comfort participating in physical activity	1	2	3	4
Ability to prepare and choose healthy and balanced food options	1	2	3	4
Comfort with strength and circuit-based training	1	2	3	4

Ability to manage your time to fit physical activity into your weekly schedule	1	2	3	4
Ability to use physical activity as a way to manage stress	1	2	3	4

3. On average, how many hours or minutes of the week do you spend doing moderate to vigorous activities?

Moderate physical activities include activities that make you breathe a little harder, but you are still able to carry on a conversation. Examples include brisk walking, household chores, easy jogging, cycling, light dancing, etc.

Vigorous physical activities include activities that make you breathe hard, sweat, and make it difficult to talk. These include running, sports, fast swimming, etc.

Please report total hours for an average week in either hours *or* minutes

Hours: _____ *or* Minutes: _____

4. By participating in this program, I hope to (choose all that apply):

Learn new skills

Lead a healthier lifestyle

Reduce my stress levels

Become more productive

Increase my energy levels

Incorporate health and wellbeing into my daily routine

Spend social time with other participants

Other (please specify):

- 5. Feel free to provide any additional comments, questions, or concerns you may have. We welcome your feedback on what you would like to know, and how we can make sure that this program offers you the knowledge and experience to start your journey to health!**

Thank you for participating in this survey!

Appendix D. Post-Program Survey

Move More, Learn More: Post-Program Survey

1. On the scale below, please indicate your current level of knowledge on the topics below. 1 = no knowledge and 4 = excellent knowledge.

Topic	Knowledge			
	None	Little	Good	Excellent
Current opportunities to be active offered by UBC Recreation	1	2	3	4
The influence that physical activity has on mental health	1	2	3	4
Importance of having a healthy and balanced diet	1	2	3	4
Strength and circuit-based training	1	2	3	4
Time management strategies to fit health behaviours into your schedule	1	2	3	4

The impact physical activity has on your stress levels and sleep	1	2	3	4
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2. On the scale below, please indicate your current level of comfort or ability on the topics below. 1 = no comfort/ability and 4 = excellent comfort/ability.

Topic	Comfort/Ability			
	None	Little	Good	Excellent
Comfort participating in physical activity	1	2	3	4
Ability to prepare and choose healthy and balanced food options	1	2	3	4
Comfort with strength and circuit-based training	1	2	3	4
Ability to manage your time to fit physical activity into your weekly schedule	1	2	3	4
Ability to use physical activity as a way to manage stress	1	2	3	4

3. Please indicate how many sessions you attended?

Monday: _____ **Wednesday:** _____ **Drop-in classes:** _____

4. On average, how many hours or minutes of the week do you spend doing moderate to vigorous activities?

Moderate: activities that make you breathe a little harder, but you are still able to carry on a conversation. Examples include brisk walking, household chores, easy jogging, cycling, light dancing, etc.

Vigorous: activities that make you breathe hard, sweat, and make it difficult to talk. These include running, sports, fast swimming, etc.

Please report total time for an average week doing moderate to vigorous activities in either hours *or* minutes

Hours: _____ *or* Minutes: _____

5. The greatest benefits of my participation include (choose all that apply):

Learning new skills

Leading a healthier lifestyle

Reducing my stress levels

Increased productivity

Increased energy

Incorporate health and wellbeing into my daily routine

Spending social time with program participants

Other (please specify):

6. The greatest barrier to my participation in the program was (choose all that apply):

The timing/frequency of activities

A lack of social support

Lack of Motivation

Ineffective communication about the program

Not interested in health topics and physical activities

Impact on commute (ex. having to stay later on campus, arriving home later, etc.)

Other (please specify):

I found no barriers to participation

7. Feel free to provide any additional comments, questions, or concerns you may have. We welcome your feedback on what you enjoyed and did not enjoy about this program so that we can make improvements in the future.

Thank you for participating in this program!

Appendix E. Pre-program and Post-program Survey- Average results on selected topics

TOPIC	AVERAGE	
	<i>Pre-program survey</i>	<i>Post-program survey</i>
Overall knowledge level	2.68	3.45
Knowledge level on the current opportunities offered by UBC Recreation	2.60	3.36
Knowledge level on strength and circuit training	2.10	3.45
Knowledge level on time management strategies to fit health behaviours into schedule	2.30	3.41
Overall comfort level	2.61	3.35
Comfort level in participating in physical activity	3.05	3.73
Comfort level with strength and circuit-based training	2.25	3.36
Comfort level in the ability to manage time to fit physical activity into weekly schedule	2.25	3.18
Duration of time spent or intended to spend on moderate to vigorous activity in a week	2.43 hours	3.73 hours