University of British Columbia

Social Ecological Economic Development Studies (SEEDS) Sustainability Program

Student Research Report

Strategies and Recommendations for Increasing Engagement in BodyWorks

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Prepared for:

Course Code: KIN 464

University of British Columbia

Date: 13 April 2021

Strategies and Recommendations for Increasing Engagement in BodyWorks: Final Report

Group 19, Project J

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KIN 464-001: Health Promotion and Physical Activity

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April 13th, 2021

Executive Summary

BodyWorks is an exercise outreach program provided by the School of Kinesiology at the University of British Columbia (University of British Columbia, 2020). While targeting staff members that are slowly returning to campus to teach, BodyWorks can cater their programs to these staff members while simultaneously increasing their clientele. The literature review that investigated the effectiveness of certain advertisement strategies, positional differences of university staff towards exercise programs, and exercise behaviours during the pandemic. The review provided foundational understanding of previous data that had already been gathered relevant to the current study. The literature review also led to our main research question: How can BodyWorks modify current offerings, advertisements, and communications to suit the needs of potential clients?

BodyWorks stated their potential clients were 40-60 year old UBC staff or faculty members who have a risk factor for a chronic illness. By using a cross sectional, non-experimental, and mixed methods research design, a survey was designed with a mixture of both open and closed ended questions. The purpose of the survey was to obtain staff, faculty, and employee opinions towards BodyWorks' current advertising methods, effects of COVID-19 on physical activity, barriers experienced and needs of UBC employees that affect not only exercise participation but also BodyWorks participation, and how BodyWorks can further cater to the individual needs of the UBC community.

Some of the key findings from the results include 61.54% of respondents reported that they have not seen any campus advertisements that have encouraged them to exercise, and 61.54% of respondents have not heard of BodyWorks before. Other important results detail the main reasons for engaging in physical activity including improved physical and mental health, and for enjoyment/leisure, while noteworthy barriers for exercise include lack of a gym in the vicinity of their office and a lack of time. These results led to three recommendations to BodyWorks:

1) Advertising Strategies: Not only for more BodyWorks programming advertisements overall, but tailoring the advertisements to appeal to the target population by using different types of multimedia to distribute the advertisements, and changing up the language and images used to include the younger demographic.

2) Addressing Perceptions: Previous misconceptions have labelled BodyWorks as "too structured," "serious," and "for the aging community." By spreading awareness about the programs suitable for middle-aged participants, especially those with less rigid programming, a change in the preconceived assumptions of BodyWorks is expected. Also, creating a physical environment that is warm and welcoming will help to attract new potential members.

3) Increasing Accessibility: This can be done through two methods: Flexible scheduling: The target age group of this survey was for 40-60 year olds, all of whom are still in the workforce (must work on campus to meet inclusion criteria), therefore, more program slots should be available before and after normal working hours (9-5pm). Next, Website Layout: As the BodyWorks website is the main method of providing information to the general public, the user interface should be improved for ease of use by enlarging font size, providing inclusive imaging, and improving general organization of the website.

With these recommendations in mind, we hope that our developed recommendations will be considered and evaluated by BodyWorks to implement concrete changes to different aspects of their business model to increase clientele.

Introduction

According to ParticipACTION and Statistics Canada, a staggering 84% of Canadian adults do not get the minimum 150 minutes of moderate to vigorous physical activity per week (2020). BodyWorks is an outreach program provided by the University of British Columbia's School of Kinesiology that aims to decrease the statistic by providing student facilitated programs targeted for older adults, staff, and faculty members (University of British Columbia, 2020). Specifically, emphasis on evidence-based practices is used, which entails "interventions that are based on scientific literature with detail on… outcomes, and length of intervention" (Brosseau et al., 2008, p. 858). With the emergence of COVID-19 which disrupts in-person classes provided by BodyWorks, a shift in delivery method by using the "Zoom" platform was adopted to be in compliance with public health orders (University of British Columbia, 2020). Other situational variables that challenge the operations of BodyWorks include less staff members and students travelling to campus to attend and deliver programs respectively, costly parking, and significant travel time. These challenges have urged BodyWorks to re-evaluate their programs and consider how they can expand their clientele, mainly targeting those 40-60 year old staff or faculty members that are already present on campus daily with at least one risk factor for chronic disease.

Literature Review

The current literature on providing wellness programs for university employees mainly focuses on strategies for advertising about campus programs, addressing barriers to engagement, and creating programs to result in the highest level of participation.

To aptly describe the promotion of university wellness programs, agentic and communal content must first be defined. As put by Abele and Wojciszke (2014), agentic content refers to individual

success and self-profitability, while communal content focuses on interpersonal connections and other-profitability. Current literature agrees that most university employees respond more positively in terms of engagement when communal or "additional" benefits such as stress reduction, improved coping, improved productivity, improved overall health and wellness, and social aspects of group sessions are advertised rather than the agentic or "direct" benefit of physical gains (Brawley, 2003, p.182; Das et al., 2013; Howle et al., 2017; Tapps et al., 2016; Vansickle et al., 2010;). It is important to note that some studies mentioned above were limited, as they only tested reactions to advertisements for hypothetical exercise programs (Howle et al., 2017). This information has implications on both deciding the types of programs that should be offered, and how to advertise for them. Conversely, a study with a slightly different sample of older adults, not specific to university employees, found that adapting promotional materials to align with the individual's goals was instrumental in increasing physical activity participation (Brawley, 2003).

While some studies looked at university employees as a collective body and did not take into account positional differences (Das et al., 2013; Howle et al., 2017; Plotnikoff et al., 2015; Tapps et al., 2016), others noted that different types of employees, such as staff, faculty, and administration, may prefer different types of programs (Leininger et al., 2015; Vansickle et al., 2010). This could be due to some key differences between the types of employees such as schedules, wages, or even the different nature of each position. For example, staff tend to have desk jobs in a set location, whereas faculty may need to be on their feet while teaching and may have to walk between different lecture halls (Leininger et al., 2015). Lastly, university employees have unique barriers to exercising, especially at the workplace, compared to other occupations (Das et al., 2013; Leininger et al., 2015; Plotnikoff et al., 2015; Tapps et al., 2016;

Vansickle et al., 2010). All types of university employees may be opposed to traveling long distances to the nearest fitness facilities on large campuses (Das et al., 2013), and faculty members may prefer to use private facilities, as not to run into students outside of class (Leininger et al., 2015).

A study by Plotnikoff et al. (2014) reviewed health behaviour interventions on staff in tertiary education institutions and identified the effectiveness of health-related interventions. Plotnikoff et. al. (2014) recognized university and college settings as excellent ecosystems for health promotion due to an increased amount of staff, higher budgets for health programming as opposed to secondary education, and increased access to competent resources, allowing for potential outsourcing of programs. “Health is created and lived by people within the settings of their everyday life; where they learn, work, play and love.’’ - reinforces the idea of health determination as a partly emotional process, in that individuals must want to achieve health as well before it can be achieved, and that the idea of true health varies from person to person (Plotnikoff et. al., 2014, p. 170). However, this was not directly addressed as a finding, which emphasizes it as a gap in this study, as seen in others. Plotnikoff et. al. (2014) identified overwhelming success in the implementation of goal-setting in addition to virtual classes and motivational emails, among other aspects. The study also confirmed that the availability of university facilities, such as gymnasiums or other campus centres (some of which were used on a campus fitness map), also contribute to increased effectiveness of implemented programs. This was useful in determining the types of health-promotion strategies that could be implemented on either a partially or fully virtual basis, especially in a university environment and with access to several facilities.

Likewise, Szymona et al. explored the relationship between health-related advertisements and policies on university campuses. Szymona et al. (2014) found the majority of health-related advertisements on university campuses to be diet, exercise, and nutrition related. The study identified a general absence of health-related advertisements and policies on many university campuses, which was helpful in identifying their significance in encouraging health-promoting behaviours (Szymona et.al., 2014). One possible limitation of this study is its surveying of university campuses based in the United States, as health behaviours may differ from theirs to that in which BodyWorks operates. In addition, it also lacked context on individuals in university environments who may suffer from chronic illnesses or may experience its risk factors.

With most of the aforementioned studies done before the emergence of the COVID-19, further research is needed to find out if the identified lifestyle modification strategies are effective during a pandemic (Gao et al., 2020). In a recent study, researchers have recognized that restrictions intended on curbing the spread of COVID-19 have resulted in people being less physically active and more susceptible to depression and anxiety (Gao et al., 2020). In efforts to adapt to changes that were brought on by the pandemic, Gao et al. sought to determine if virtual-reality (VR) based exercises would help to increase older adults' physical activity and lessen their feelings of depression and anxiety. VR based exercises were categorized as being either immersive or non-immersive; where immersive VR exercises included usage of Oculus rifts to provide a multi-sensory and three-dimensional experience, and non-immersive exercises were generated using gaming consoles such as Wii and Xbox Kinect, which are generally more accessible for most individuals (Gao et al., 2020). The study revealed that utilization of VR based exercises had positive effects and showed that overall, participants engaged in more physical activity, which facilitated improved moods and decreased anxiety (Gao et al., 2020). As

the current health and safety climate is unknown, using VR as a way to increase engagement in physical activity programs may become a way of the future, as it is easily accessible to the general public, and can be adapted to the needs of most age and ability types. It is important to note here that while the findings of this study can be promising, it only sampled a small number of participants, questioning its generalizability. Integrating non-immersive VR based exercises to existing exercise programs and behavioural modification strategies could contribute to increasing physical activity and promoting health and well-being among individuals in Body Works' target clientele, though further research on this topic would be recommended.

In a study by Fletcher et al, (2018), they examined the role of physical activity on people with a risk of chronic disease, aligning with an aspect of the target population of our study. The study specifically focused on risks for cardiovascular disease, the leading cause of death in the Westernized world (Fletcher et al., 2018). The protective effects of physical activity on the prevention of cardiovascular disease have been well documented: all forms of physical activity, regardless of sex, age, ethnicity, have beneficial effects in preventing cardiovascular disease (Fletcher et al., 2018). This study analyzed the multifaceted aspect of factors that encourage exercise, and emphasizes that programs for those with a risk of chronic disease must be "implemented at local, regional, national, and international levels" (Fletcher et al., 2018) to improve global health. However, the unknown from this research is whether or not the protective effects can be extrapolated to other chronic diseases and their risk factors, which is a characteristic of the target population of our research.

Purpose

The purpose of this study is to provide recommendations of ways to expand BodyWorks clientele, given the onset of COVID-19. The conclusions from the literature reviews suggest

BodyWorks may be able to better accommodate the needs of a greater population by tailoring advertisements and programs to have a greater focus on communal benefits, as well as accounting for the unique barriers of all types of university employees. With these conclusions in mind, it has led our group to this research question to guide our future research: How can BodyWorks modify current offerings, advertisements, and communications to suit the needs of potential clients? Research questions posed to study participants will encourage discourse on individuals' knowledge of BodyWorks' current offerings and perceptions of cost-efficient and engaging campus-based health programming.

Methods

Research Design & Plan

Potential research participants across different departments on campus were emailed with a link of the survey, a consent form (Appendix B) and an additional recruitment poster for more information. Only participants who fit in the inclusion criteria were included in the data analysis. The target was to get 50 survey responses that met the inclusion criteria, then the survey would be closed for statistical analyses, however, gathering a sufficient amount of responses proved difficult and the final total was 36 responses, with 16 that met inclusion criteria and were eligible for analysis.

A cross sectional, non-experimental, mixed methods research design was utilized to collect the data for the research. Specifically, an online survey using Qualtrics was distributed. The reason for utilizing surveys, instead of interviews, for example, was due to their low-cost, more efficient for large samples (Safdar et al., (2016), ease of administration, and the immediacy of receiving survey responses (Sims, 2019). However, the concern with online surveys is the decreased response rate compared to mailed or in-person surveys, likely due to the impersonal

nature of internet inquiries (Sims, 2019), and the potential for biased results due to low response rates if the respondents have differing characteristics than non-respondents (Safdar et al., 2016). In conclusion, using surveys was ideal for this research topic as the primary aim was to reach a large audience to collect a diverse range of responses.

Target Population & Recruitment Target

The target population consists of 40 to 60 years old adults that have at least one risk factor for chronic disease. This population was chosen since they are a potential group that BodyWorks could expand their offerings to, as the facility currently offers adult-oriented programs on campus for both staff and faculty members (University of British Columbia, 2020). The inclusion criteria for this study will be adult participants aged 40 to 60 years old, they must work on the UBC Vancouver campus at least three or more days per week, and have at least one risk factor for the identified chronic diseases by Public Health Agency of Canada (PHAC). Risk factors that will be considered are; hypertension, smoking, alcohol consumption, family history of chronic disease, and history of social isolation. As defined by the Centers for Disease Control and Prevention (2020), chronic diseases are "conditions that last 1 year or more and require ongoing medical attention or limit activities of daily living or both." In recent information from the PHAC (2016), "44% of adults 20+ have at least 1 out of 10 common chronic conditions." Diseases such as hypertension, osteoarthritis, mood and/or anxiety disorder, osteoporosis, diabetes, asthma, chronic obstructive pulmonary disease, ischemic heart disease, cancer, and dementia, were mentioned to be the common chronic conditions that are prevalent in Canada (Public Health Agency of Canada, 2016).

Moreover, there are various risk factors for developing chronic diseases that were identified by PHAC. Hypertension as being the main risk factor for development of heart disease

as well as stroke, and lifestyle behaviour such as poor nutritional intake, smoking, excessive alcohol consumption, and physical inactivity were also considered as risk factors (Public Health Agency of Canada, 2020). Social isolation was also included as a risk factor due to its effect on compromising one's health status which can develop or aggravate chronic disease (Public Health Agency of Canada, 2020). Lastly, family history of identified diseases was also considered, since it is a well-known risk factor due to the probability that individuals can be genetically predisposed to these diseases (Rasooly et al., 2019).

The recruitment target for this study is to conduct a survey among administrative staff and faculties on campus, in which a link to the survey will be sent through email randomly to different departments and faculties. The survey consists of a questionnaire with mostly closed-ended questions.

Data Collection

Data was collected through a 21-question survey administered using the Qualtrics platform. The questions were a mix of qualitative and quantitative: some were yes/no questions, some were assessed using a five item likert scale, and others had a text box to allow for elaboration of the participant’s thoughts. The survey was the only point of contact with the participants and no personal information was exchanged between the participants and the researchers. The survey took roughly 15 minutes, and each participant was to only complete the survey once. In total, administration staff and professors from six faculties, and 61 individuals from business establishments on campus were contacted that led to 36 complete responses.

First, the survey determined if the participant was within the inclusion criteria and what type of employee they currently are (faculty, administration, education staff, or other staff). The main topics of focus were awareness and opinion of BodyWorks, current exercise habits, effects

of COVID-19 on current exercise routines, thoughts about online exercise classes, and perceptions about certain advertisements. These questions were chosen to get an idea of a) how well BodyWorks is advertising and how this can be improved, b) what needs and barriers experienced by UBC employees are that affect participation in BodyWorks (this includes scheduling, financial, positional, and other personal needs/barriers, as well as any needs/barriers related to the pandemic), and lastly c) how BodyWorks can cater to these individual needs of the UBC community. The main goal of the survey was to explore the avenues that will assist BodyWorks in expanding their clientele in the target population.

Open and closed ended questions were used in the survey to analyze qualitative and quantitative aspects to each participant's response, respectively. Although the typical open-ended survey questions require more attention, engagement, physical effort and time compared to closed-ended pointing and clicking questions, open-ended questions help to assess recall that allow for detailed, spontaneous responses that are unbiased with many possible responses (Desai & Reimers, 2019). The use of closed-ended survey questions was to maintain efficiency with less cognitive demands on the participant, allowing for more questions to be answered without consuming much of the participant's time (Desai & Reimers, 2019). Some similar studies have utilized the mixture of open and closed ended questions for surveys, including a study by Kurti et al. (2015), that used a survey with closed and open ended questions to assess current physical activity behaviour, barriers, and opinions about physical activity interventions in rural Floridian adults.

Data Analysis

Data analysis was completed through Qualtrics using the Data Analysis and Report functions. The aim was to attain 50 completed surveys, but due to time constraints, only 36

completed surveys were obtained. Complete surveys were from those participants who reached the end of the survey, while incomplete surveys were from participants who did not complete or dropped out before reaching the end of the survey. A combination of descriptive statistics and qualitative analysis were used to interpret data that were collected from the survey. Descriptive statistics was utilized to determine the demographic of the participants as well as their physical activity motivators, determinants, and barriers. Descriptive qualitative analysis was also utilized to determine participants' opinions regarding BodyWorks.

Results

Sample Characteristics

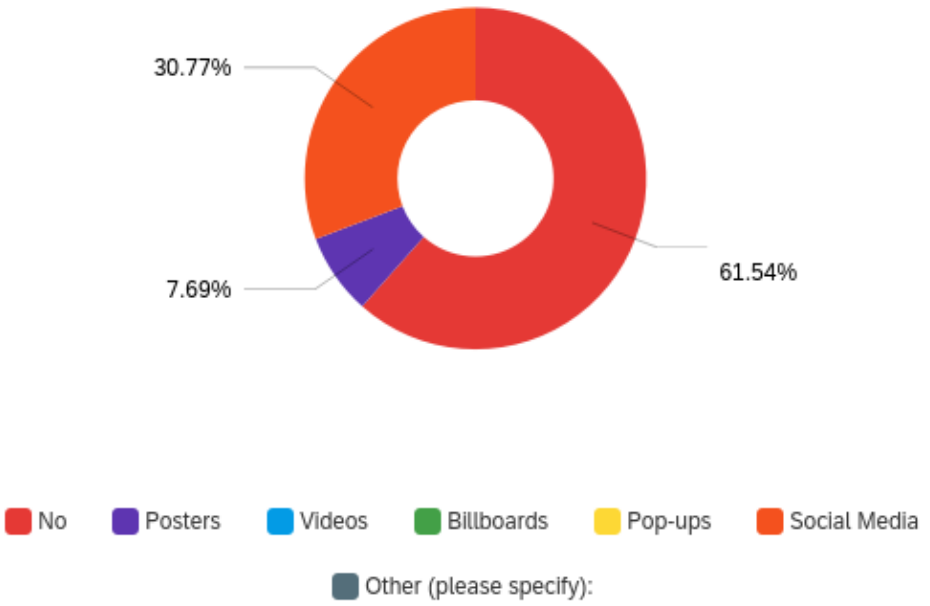
The survey has gathered 12 participants that have satisfied the inclusion criteria and completed all questions on the survey. The sample was predominantly women (68.75%, n=16), with most of them working as a faculty (46.15%, n=16) and administration staff on campus (30.77%, n=16). Majority of the participants have reported alcohol consumption as a risk factor for chronic illness (26.32%, n=16), while the same percentage of participants have responded that they believe that they do not have any risk factor for developing any chronic illness.

Physical Activity on Campus

Participants were asked questions regarding their current physical activity and how the campus provided helpful resources to stay physically active and motivated. Most of the participants have indicated that they have not seen any advertisements on campus that keeps them motivated to stay active (61.54%, n=16), while some of them have reported that they have seen advertisements from social media (30.77%, n=16).

Figure 1

Frequencies of Response for Advertisements on Campus that Motivate Physical Activity.

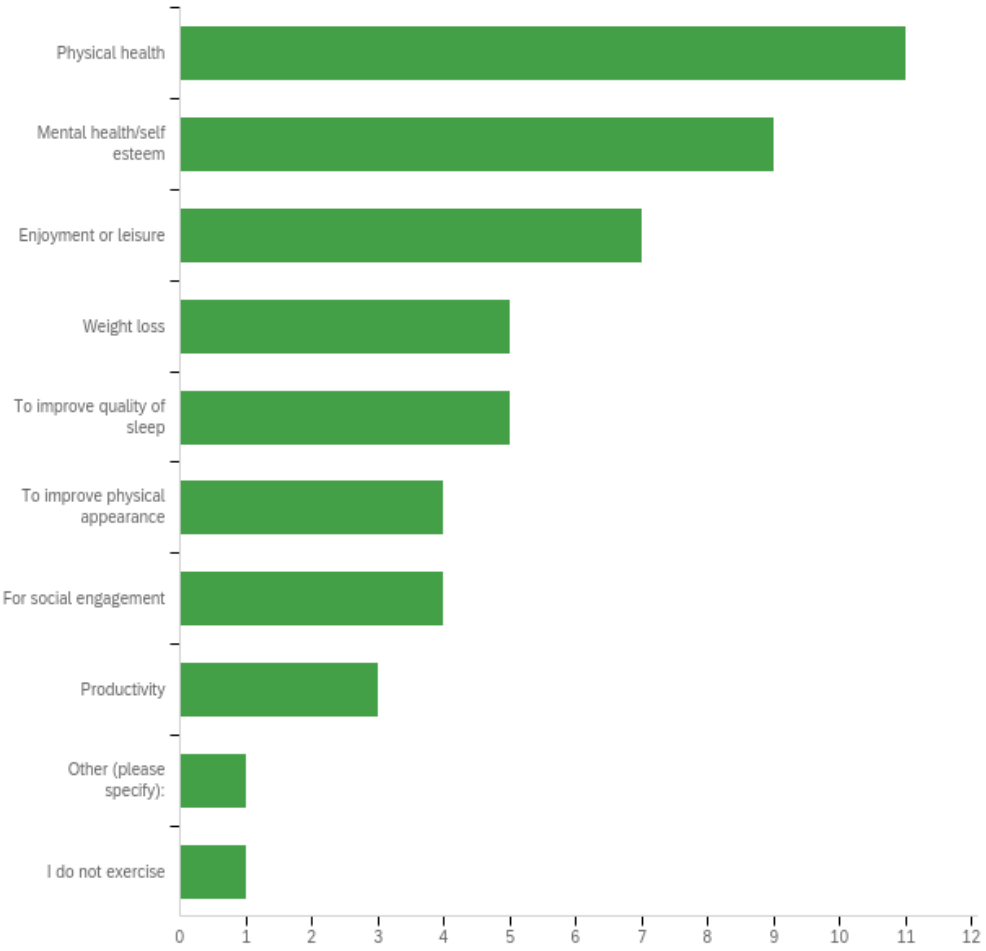


Determinants and Motivation of Physical Activity

Figure 2 shows the distribution of responses to why participants choose to be physically active. It is important to note that participants were able to select more than one answer if it applied to their lifestyle. A greater number of responses indicated an overall maintenance of physical health (22%), followed by engaging in physical activity for their mental health and self-esteem (18%), while enjoyment and for leisure were also greatly considered for physical activity (14%).

Figure 2

Frequencies of Response for the Main reason for Exercising



Most participants have reported that they enjoy exercising in a group setting (54%), while some of them do not (31%). It also revealed that most participants do not pay monthly fees for exercise related fees (30.77%), while some participants have responded that they pay $26-$50 (30.77%) and $101 and more (23.08%) for exercise related fees every month. Data was referred from Figures 3 & 4 respectively.

Figure 3

Frequencies of Response for Exercising in a Group Setting

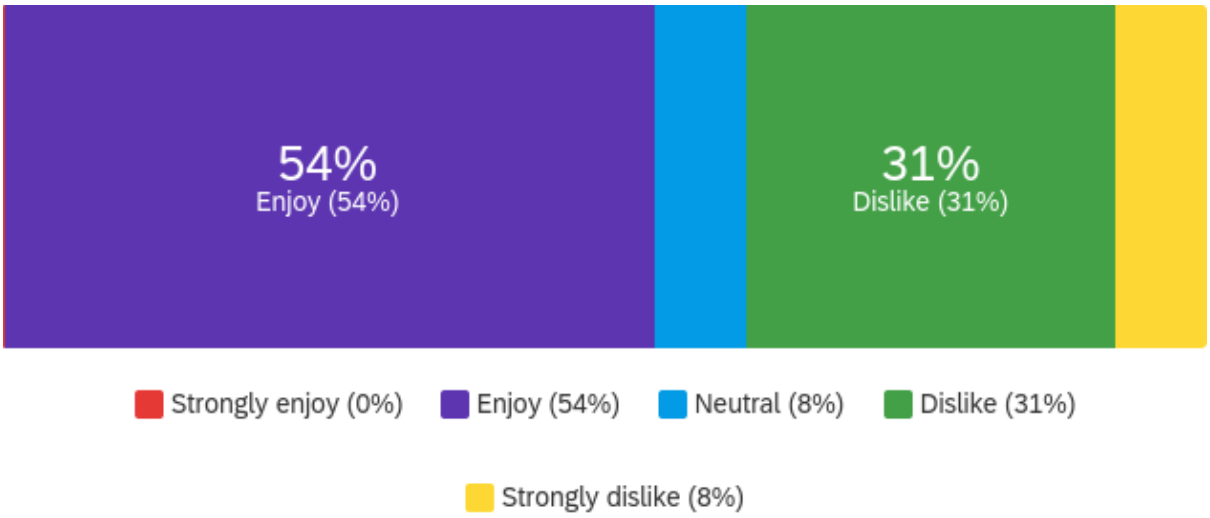
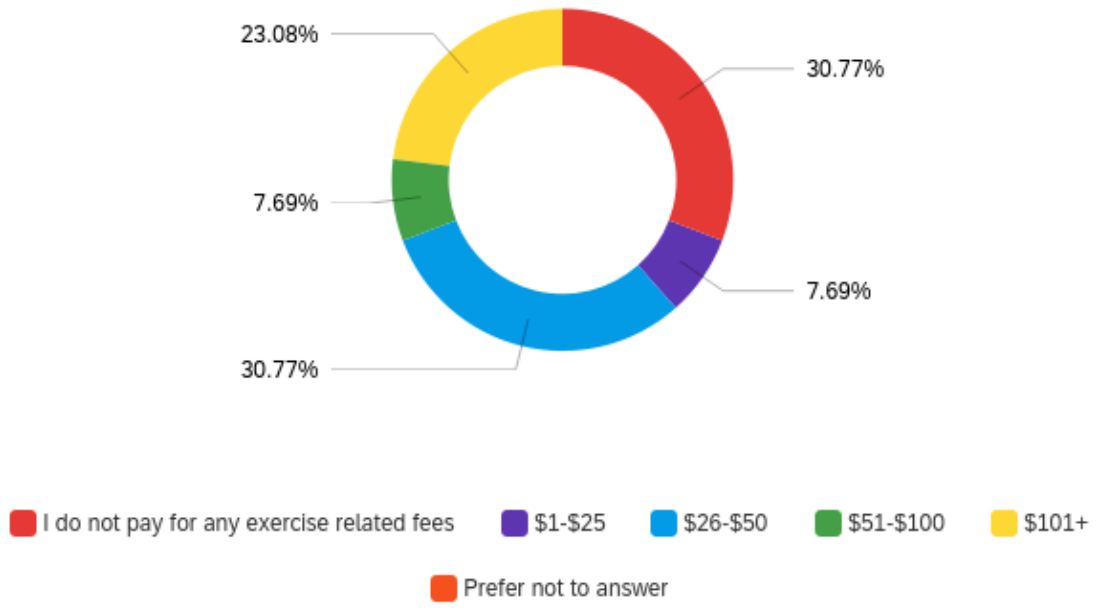


Figure 4

Frequencies of Response for Monthly Payment for Exercise Related Fee



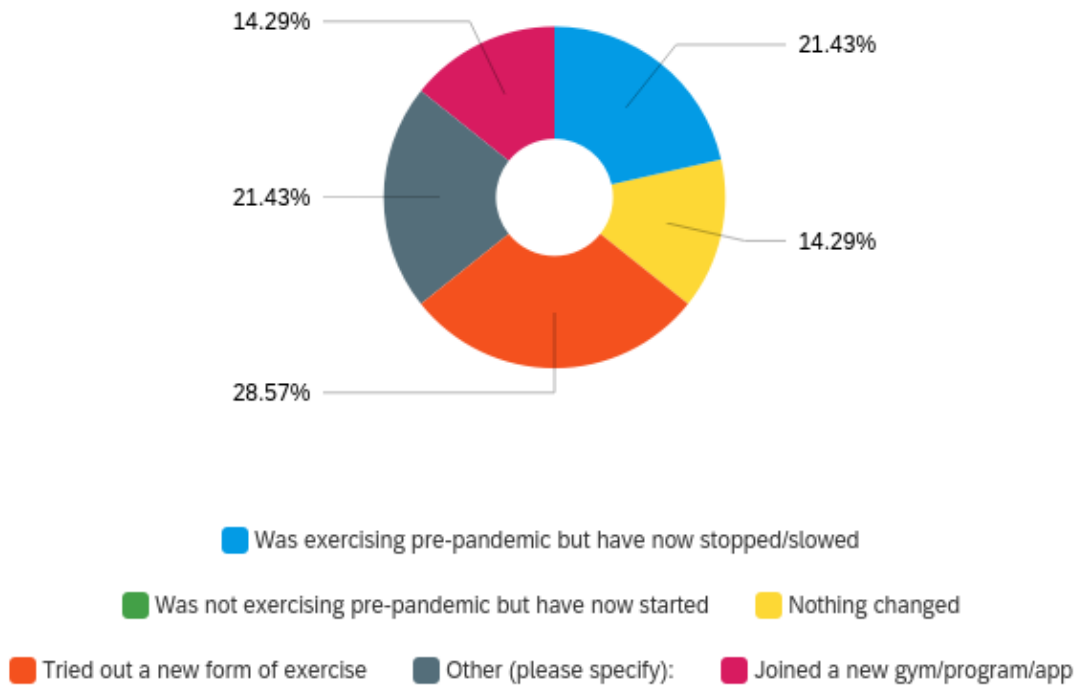
Physical Activity Barriers and Adaptation

Participants were also asked regarding barriers that may deter them from participating in physical activity or exercise programs that are offered on campus. Our results revealed that most of the participants' work vicinity is far from the gym, as well as reports of not having enough time for them to exercise.

Participants were also asked on how the pandemic had affected their exercise routine. From figure 5, majority have reported that they have tried out a new form of exercise (29%), while some have reported that nothing has changed with their exercise routine (14%) and some of them have specified that they started working at home (21%).

Figure 5

Frequencies of Response for how COVID-19 Affected their Exercise Routine.

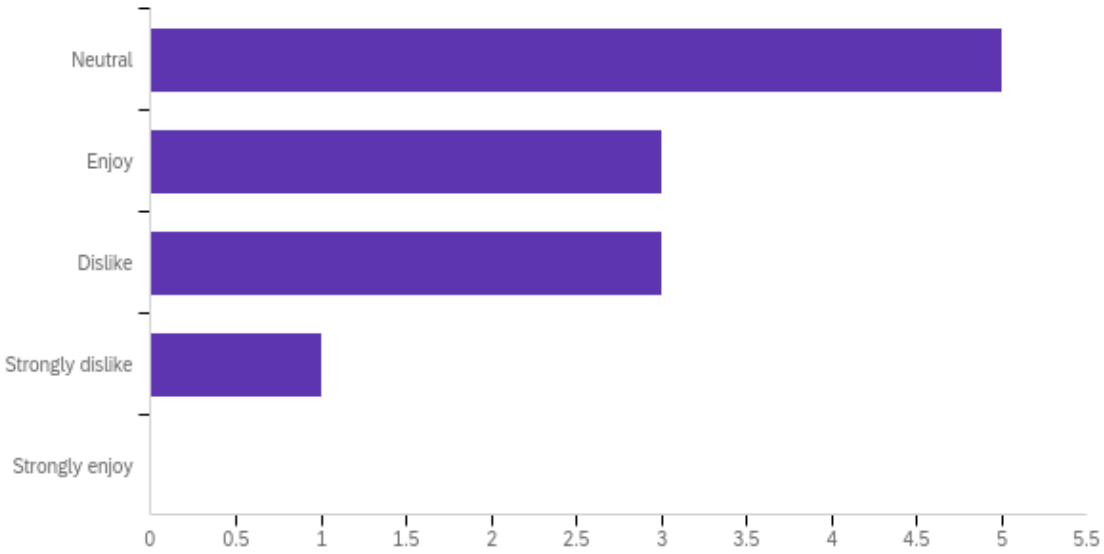


Questions regarding online exercise platforms were also included in the survey, which revealed that the most participants have not tried joining an online exercise program (61.54%). In

figure 6, it revealed that most participants have responded that they are feeling neutral about joining and enjoying an online exercise session (41.67%), while some of them either dislike or enjoy online exercise sessions (25%).

Figure 6

Frequencies of Response for Online Exercise Enjoyment



Physical Activity and BodyWorks

Participants were asked about their knowledge and opinions about BodyWorks. In figure 7, it has revealed that a larger number of participants have not heard of BodyWorks (61.54%). Additionally, Figure 8 shows how participants have heard of BodyWorks, it indicated that some have received information through email and recommendation (20%), while most responded others (60%), which participants indicated that they used to work with BodyWorks, had gone there when they have launched and opened, and known BodyWorks through a school outreach.

Figure 7

Frequencies of Response for Knowledge Regarding BodyWorks

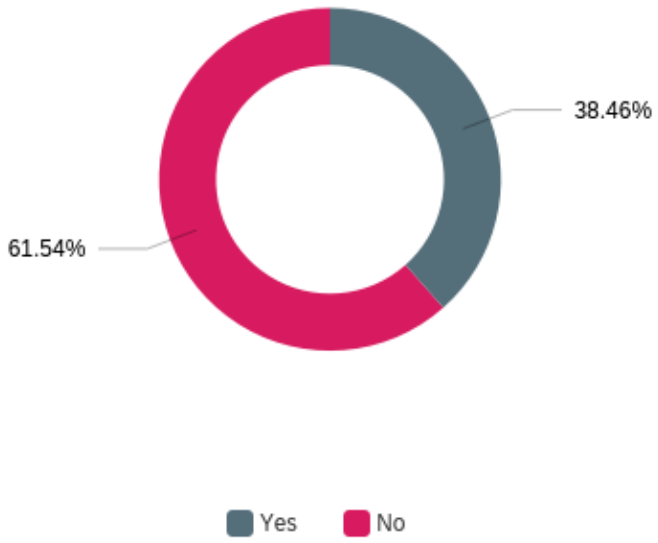
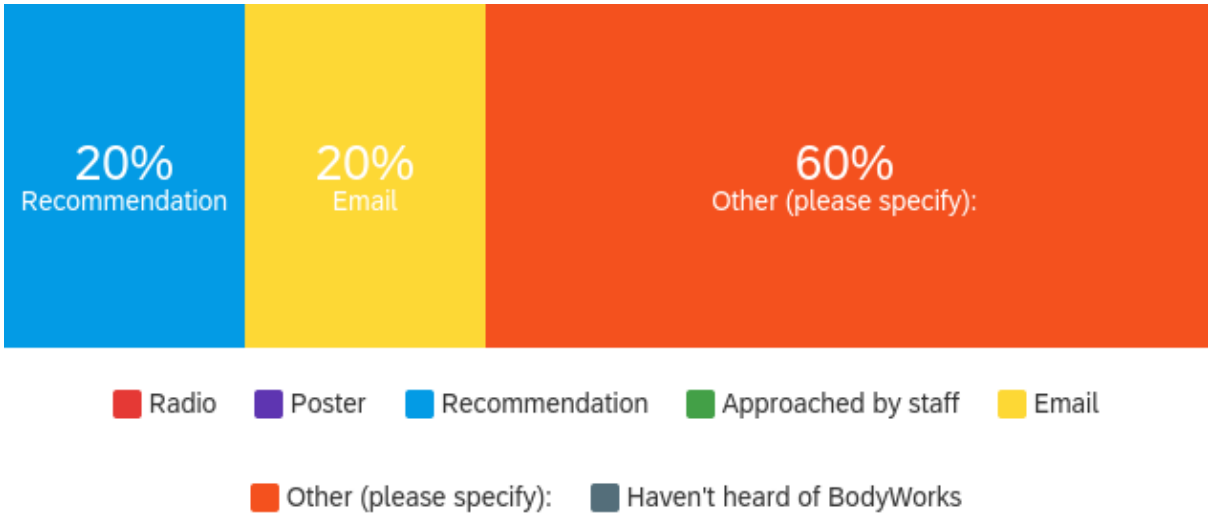


Figure 8

Frequencies of Response for Information Disseminated Regarding BodyWorks.



It also revealed that participants prefer to receive information through email (71.43%) about current information and exercise programs offered by BodyWorks. Participants also think

that it is reasonable to make an exercise related monthly fee of $25-$50 for services and programs that are offered by BodyWorks (60%). We also noted that we have gathered only 5 responses from the questions that pertain to BodyWorks, since participants only receive in-depth questions about BodyWorks if they have previously heard of BodyWorks.

Finally, participants who have knowledge regarding BodyWorks were asked regarding their opinion about it and have gathered four responses. A participant has mentioned that, “it was nice, however the equipment was old and not very many cardio machines i.e. each. The last time i was there was probably more than 10 years ago though”. Two participants find that BodyWorks is too structured for them and have a more serious environment, which may take out the fun and enjoyment of exercising. Lastly, one participant has mentioned that, “I see it more as a place for the aging community”.

Discussion

Some of the most significant findings from this study were regarding the awareness of the BodyWorks program, and the study participants' expectations or assumptions about the program, rather than the program itself. According to this study, more than half of the participants (61.54%) had never heard of BodyWorks. This is most likely due to a lack of advertising, especially on media types popular with people aged 40-60 years old such as social media, radio, and newspapers, along with several other media forms. Another important finding was that people aged 40-60 feel too young for this program. This is not surprising, as BodyWorks originally focused on attracting an older age demographic for their 65+ changing aging program, and as so, the information, language, and images on the website are aimed at attracting older participants. One other noteworthy finding, was that the majority of the current classes are being offered between 9am and 5pm, which is less accessible for those still in the workforce. By

addressing the lack of advertising, attempting to change existing assumptions about the program, and changing the schedule, it is expected that the program will have more success in expanding their clientele.

Most of the respondents consisted of faculty or administration staff, and reported almost identical barriers to exercising compared with similar studies from the current literature review (Das et al., 2013; Leininger et al., 2015; Plotnikoff et al., 2015; Tapps et al., 2016; Vansickle et al., 2010). One key similarity a participant noted, was that although BodyWorks is on the UBC campus, it was still far from this individual's on-campus worksite (Das et al., 2013). The UBC Vancouver campus is very large, and the BodyWorks gym could be as far as a 20 minute walk from some spots on campus. As a final note, this research was focused on a very specific topic and organization, therefore, this is a pioneer study in that it is the only one of its kind.

Strengths and Limitations

This study is strong because it is looking at a topic not studied before, especially when taking into account that responses might have been affected by the current COVID-19 pandemic. BodyWorks has previously been focusing on impacting the wellbeing of older adults (65+ years old), and as Middle-aged adults (40-60 years old) are a population not studied often, it is especially important to research on this topic. A considerable amount of current literature regarding outreach programs similar to BodyWorks either focuses on young adults (18-45) or seniors (65+). The results from this survey will be of direct benefit to BodyWorks, and as such may indirectly benefit those in the middle-aged category by increasing physical activity offerings available to them.

There are some significant limitations to this study mostly due to the tight time constraint associated with the nature of student-led projects. With less than a month to gather participants,

it was difficult to reach a large audience of people who met the inclusion criteria, especially during the pandemic, as online communication (mainly email) was used exclusively to circulate the survey. With the survey being distributed in a very busy time of the semester, it is suspected that many individuals in the target population might simply have not had the time or energy to complete the survey. Lastly, the inclusion criteria given by BodyWorks also specified that the participants should be working on campus daily, which resulted in another complication. Although many UBC employees, faculty, or staff would normally be working on campus, many are now working from home due to the online nature of their work during the pandemic. Another limitation pertained to a survey question that originally asked "Do you currently work ON the UBC Vancouver campus?" that was reconsidered after receiving a reply from one participant that mentioned many UBC employees are currently working off-campus due to the pandemic. The question was adjusted to include "Do you currently work ON the UBC Vancouver campus? (If you work on campus for at least 3 days/week or more, please select "Yes")" in order to acquire more responses.These obstacles resulted in only gathering a small sample size of 36.

Another observation that was noted pertained to the minimal responses provided for open-ended survey questions. For text-box questions, the answers ranged from one-two word responses to one-two sentences. The lack of in-depth responses could be due to the size of the text box. Research from Behr et al (2014) that studied effects of different text box sizes found that using larger text boxes led to increases in word count and response quality, as participants infer larger text boxes represent the desire for a longer answer.

Future Directions

One of the main barriers to expanding BodyWorks clientele was the challenges to changing the perception of potential participants that BodyWorks as a gym for seniors. Future

research should take an in-depth look at the target-age-group's preferences when it comes to specific program types, leisure, mode of advertising, and advertisement content.

Several classes offered by BodyWorks, specifically "Changing Aging" and "Fit Over 50" are tailored to an older demographic, and future research needs to examine what types of programs 40-60 year olds prefer to participate in. This ties into the next recommendation for future research: leisure. BodyWorks uses an evidence-based practice model to create their programs, what is lacking, however, is fun. This suggestion proposes a look into how to incorporate a leisure-perspective into existing and future programs. The last two directions for future research are on the topic of advertising. As the individuals in the 40-60 year old age range are between the "net" and the "newspaper" generations (van der Goot et al., 2016) there is not an abundance of current literature examining which are the most effective media types for advertising to this generation (ex. Social media, newspaper, tv, radio, posters, etc.). Along with media type, the content of the ads is also of utmost importance. Future research should look at what styles are most appealing to this demographic, such as affective or rational (Drolet et al., 2007) or agentic and communal messaging (Howle et al., 2017), as adapting promotional materials to align with individual goals is key to increasing participation (Brawley, 2003).

Future research can also focus more on the financial aspect of BodyWorks operations. Our survey did ask questions pertaining to current spending for exercise related fees and what participant's thought BodyWorks should cost, and the consensus was around $25-$50 monthly. However, we did not include a financial recommendation due to the lack of information of BodyWorks' financial details that is likely private. Therefore, our recommendations would be for future research to explore monetary rewards, such as discounts for participants after attending a

certain number of classes, or dissect BodyWorks' budgeting strategies in the efforts to lower program costs for participants.

Recommendations

Our recommendations can be divided into three sections based on our findings - advertising, addressing perceptions, and increasing accessibility. Recommendations related to advertising aim to address respondents' lack of engagement with exercise & BodyWorks-related advertising. As 61.54% of participants reported not encountering advertising that promoted physical activity on campus, it is recommended that more advertisements of this nature are displayed. Social media (30.77%) was reported to be the most successful form of advertising, thus, an increase in multimedia advertising is recommended, in addition to physical advertisements such as posters. Specifically, an increase in the total number of advertisements for BodyWorks is also strongly recommended, as 61.54% of participants reported not having heard about the program. It would also be likely successful to include advertisements in emails or email a monthly newsletter, as it is the respondents' preferred mode of communication.

With reference to addressing perceptions, recommendations made aim to address some common misconceptions respondents' had that served as deterrents to their participation in BodyWorks programs. BodyWorks currently offers programs suited for individuals 18+, 50+, and 65+, which is inadequate for those in the target age group, especially those 40-50 years of age. Additionally, the imaging on the BodyWorks' website is often mostly reflective of an older demographic. Thus, it is recommended to diversify imaging in BodyWorks advertising to include the younger target demographic of individuals aged 40-60. Specialized messaging regarding the program's goals related to chronic illnesses prevention and its risk factors is also encouraged, as BodyWorks would be considered a local program that could be a stepping stone for larger scale

programs that the study by Fletcher et al (2018) recommends. In the same fashion, it is recommended that BodyWorks adopts implementation strategies that reinforce the importance of physical activity from a leisure standpoint, in order to increase engagement and improve participants' experiences. By making changes to the delivery methods used by staff, separate from BodyWorks' heavy focus on research and evidence-based practices, the exercise programs could be more enjoyable. This can also manifest through changes made in relation to the ambience in exercise facilities, for example, an increase in natural light would be beneficial because, as one respondent mentioned, "the lack of natural light is disconcerting". The implementation of all the above strategies should be communicated and announced to potential clients through advertisements across various platforms.

Increasing accessibility encompasses the third set of recommendations. This relates to changes BodyWorks can make to increase access to their offerings towards more individuals in the target population. The first recommendation is for BodyWorks to improve client experience by refurbishing its website, as a major platform for accessing the information about the program, specifically increasing font size, using inclusive images, and improving overall organization of the website. If possible, it would be beneficial to create a completely new website with a URL that includes the word "BodyWorks." The current webpage does not appear until the fifth search result when searching the phrase "bodyworks" on Google. Furthermore, when searching "body works" on Google the UBC BodyWorks webpage does not appear until the second page of web results. Lastly, as time was identified by many as a reason for not participating in BodyWorks programs, it is recommended that BodyWorks adjust scheduling to accommodate individuals that are not able to participate during standard work hours, likely between 9AM and 5PM. This would also make it more possible for more members of campus staff to participate in the

program. With these recommendations, BodyWorks would go great lengths in addressing our findings as well as its goals of increasing clientele amongst 40-60 year old sedentary campus staff at-risk for chronic illnesses.

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Appendix A

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

How can BodyWorks expand their Clientele?
Group 19

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 exercise habits, and preferences for certain advertisements and workout programs.

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

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

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.

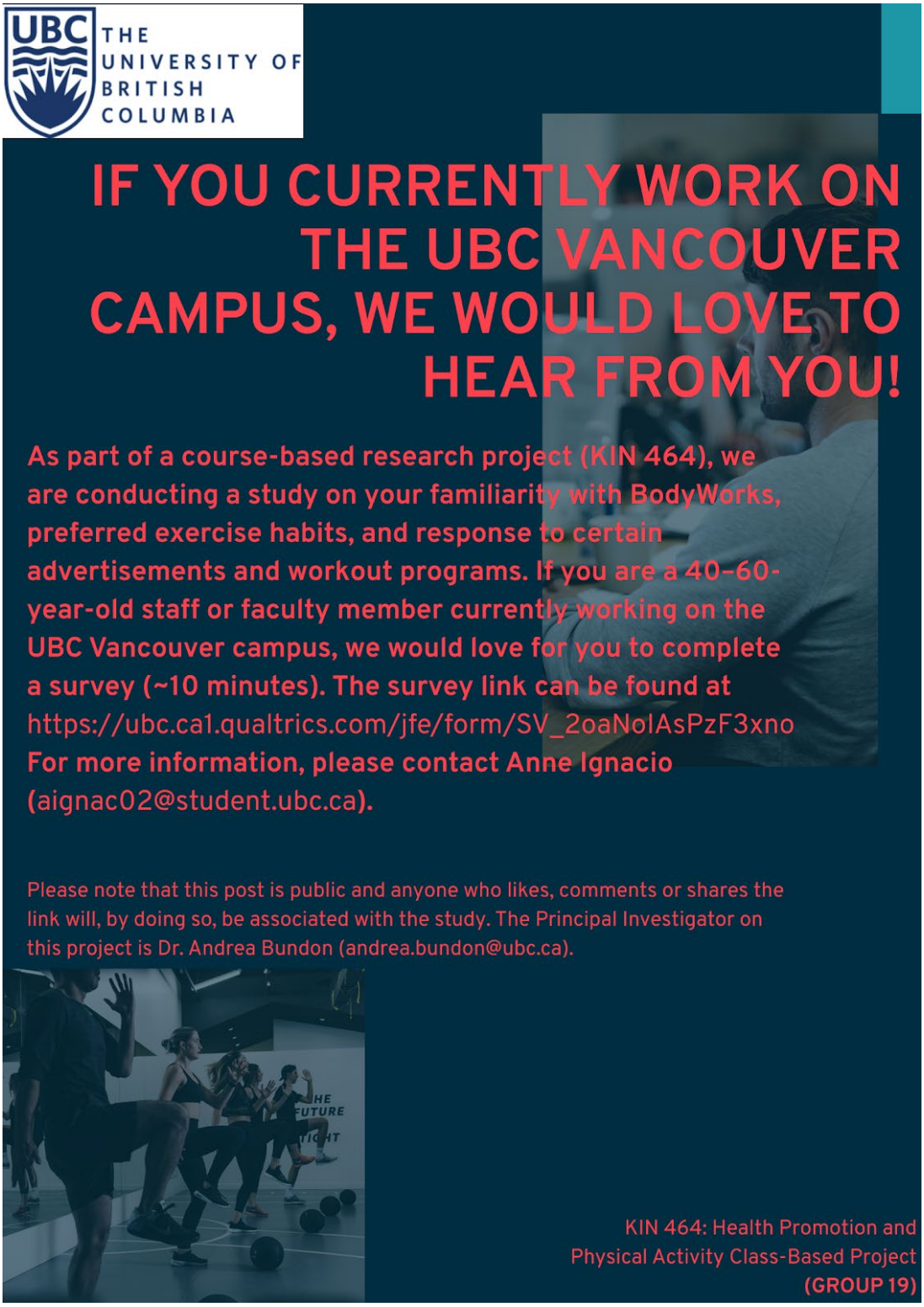
Consent:
Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time.

Confirm your Consent:

○ Yes ○ No

Appendix B

Recruitment Poster



Appendix C

Survey Questions

- Consent Form (Appendix A)
- Please indicate your age.
    - [Draggable Scale]
- Are you at risk for any chronic disease? Please select one.
    - Yes
    - No
    - Not sure
- Do you engage in any of the following behaviours? Or have you been affected by any of the following? Check all that apply.
    - Smoking
    - Alcohol Consumption
    - Hypertension
    - Social Isolation
    - Family History of Chronic Illness
    - None
- What gender do you identify as?
    - Man
    - Woman
    - Non-binary/third gender/queer
    - Two spirit
    - Other

    - Prefer not to say

- Do you currently work ON the UBC Vancouver campus? (If you work on campus for at least 3 days/week or more, please select "Yes").
    - Yes
        - If yes: What is your position at UBC? Please select one.
            - Faculty
            - Education Staff
            - Administration
            - Other
    - No
- Have you seen any advertisements on campus that motivated you to stay active? Check all that apply.
    - No
    - Posters
    - Videos
    - Billboards
    - Pop-ups
    - Social media
    - Other (please specify): [text box]
- What are your main reasons for exercising? Check all that apply.
    - Physical health
    - Mental health/Self esteem
    - Weight loss

    - Productivity
    - Enjoyment or leisure
    - To improve quality of sleep
    - To improve physical appearance
    - For social engagement
    - I do not exercise
    - Other (please specify): [text box]

- Do you enjoy exercising in a group setting? (For this question, disregard the pandemic and answer the questions as you would have in a COVID-19 free world.)
    - Strongly enjoy
    - Enjoy
    - Neutral
    - Dislike
    - Strongly dislike
- On average, how much do you pay monthly for exercise related fees? (ex. Gym memberships, personal training, athletic team fees, workout programs)
    - I do not pay for any exercise related fees
    - $1-$25
    - $26-$50
    - $51-$100
    - $101+
    - Prefer not to answer
- Are there any particular barriers you face that deter you from working out on campus?

    - [Text box]

- How has COVID-19 affected your exercise routine? Check all that apply.
    - Nothing changed
    - Was exercising pre-pandemic but have now stopped/slowed
    - Was not exercising pre-pandemic but have now started
    - Tried out a new form of exercise
    - Joined a new gym/program/app
    - Other (please specify): [Text box]
- Have you ever joined an online exercise session?
    - Yes
    - No
    - Cannot remember
- Do you enjoy online exercise sessions?
    - Strongly enjoy
    - Enjoy
    - Neutral
    - Dislike
    - Strongly dislike
- Have you heard of BodyWorks?
    - Yes
        - If yes: How did you hear about BodyWorks?
            - Haven’t heard of BodyWorks
            - Radio

    - Poster
    - Recommendation
    - Approached by staff
    - Email
    - Other (please specify): [Text box]
- If yes: What would be the best way to provide you with information about BodyWorks or engage you with BodyWorks programming?
    - Email
    - Phone
    - Pop-ups
    - Mail
    - Social media
    - Prefer not to answer
    - Other (please specify): [Text box]
- If yes: What would you think would be a reasonable monthly cost for this type of programming?
    - $0-$25
    - $26-$50
    - $51-$100
    - $101-$200
    - $200+
    - Not familiar enough with BodyWorks
- If yes: What is your opinion of BodyWorks?

        - [Text box]
    - No
- Please add any final comments or feedback pertaining to this survey or the BodyWorks program at UBC. If you would like to learn more about BodyWorks, please use the following link: https://kin.educ.ubc.ca/outreach/body-works/
    - [Text box]

Appendix D

Presentation Poster

UBC KIN

Ways to expand BodyWorks clientele and increase physical activity amongst UBC Vancouver staff aged 40-60 at risk for chronic illnesses.

BACKGROUND

BodyWorks is an outreach program provided by the University of British Columbia's School of Kinesiology. The main focus of BodyWorks has been the changing aging program, which is aimed at those 60+, to stay active throughout the entire lifespan. BodyWorks is now looking to expand to a younger demographic of 40-60 year olds. Our task was to look for ways to expand the BodyWorks clientele.

RESEARCH QUESTION

How can BodyWorks modify current offerings, advertisements, and communications to suit the needs of potential clients?

METHODS

We administered a 21-question survey through Qualtrics which was disseminated through email. We used Qualtrics to analyze the survey responses.

PARTICIPANTS

Our target population were individuals aged 40-60 that worked on the UBC Campus and are at risk for at least one chronic illness. This includes those that commenced working from home due to COVID-19.

FINDINGS

+Most (58%) have not heard about BodyWorks.
+There is not enough advertising that encourages physical activity on campus.
+Most perceive having lack of time as a factor for decreased physical activity.
+Many perceived BodyWorks' programs as more "serious" & structured than other exercise gyms.
+Their preferred mode of communication in relation to BodyWorks operations is email.

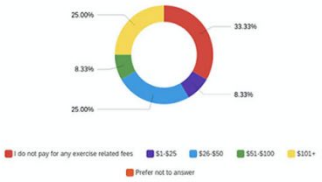


Figure: Distribution of responses regarding monthly expenditure on physical activity.

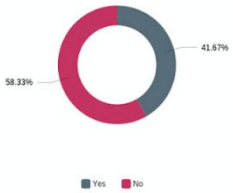


Figure: Distribution of responses regarding knowledge of BodyWorks.

BARRIERS

"I dislike being indoors and certainly a place without windows: it's not mentally uplifting and just more work.The whole exercise thing is work not fun."

Figure: Perceived barriers to participation in physical activity.

RECOMMENDATIONS

Advertising:
+Increase health-promoting advertisements on campus through the use of multimedia.
+Increase on-campus advertisements of BodyWorks.

Addressing Perceptions:
+Execute programs from a leisure perspective to improve engagement experiences.
+Alter BodyWorks advertising to include younger demographic of 40-60 year olds.

Increasing Accessibility:
+Refurbish the BodyWorks website (font size, images, & organization) as a major platform for the program.
+Alter programming to accommodate individuals that work during standard hours.

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University of British Columbia
KIN 464: Health Promotion