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MAJOR ARTICLE

Designing effective point-of-choice prompts to promote active transportation and staircase use at a Canadian University

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ABSTRACT

Objective: The purpose of this study was to determine the most suitable health messages and designs to create point-of-choice prompts for promoting active transportation and staircase use that would appeal to undergraduate students. **Participants:** Undergraduate students ($N = 21$; 71% women) were recruited during Fall (2016) and Winter (2017) semesters. **Methods:** Focus groups (50–80 minutes each) were organized to obtain students' feedback on the kind of messages and poster designs they found motivational. Inductive content analysis was performed on verbatim transcripts. Descriptive statistics were calculated to summarize demographic characteristics of participants. **Results:** The major themes revealed that participants: preferred simple designs with tailored messages; had diverse lifestyle-based values associated with physical activity; and participation in activities were affected by uncontrollable factors (eg, time, built environment, and weather). **Conclusions:** This study provides insights for designing suitable point-of-choice prompts that are tailored for university students in terms of future interventions that aim to improve their activity levels.

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Introduction

In the years since researchers began to appreciate the benefits of routine patterns of physical activity on individuals' health, it has been a challenge to find effective ways to motivate people of all ages to engage in more physical activity.^{1–3} Physical activity provides numerous immediate (eg, improved sense of well-being and reduction of stress) and long-term health benefits (eg, decrease risk factors of chronic illnesses such as diabetes and cardiovascular diseases), and could decrease the likelihood of premature death.^{4,5} Internationally, approximately two thirds of adults have self-reported that they met physical activity guidelines;² however, objectively measured data revealed activity levels as low as 15% among adults in a Western country such as Canada.³ Young adults (eg, those attending post-secondary institutions, typically between the ages 18–24 years), in particular, are highly inactive and spend a large amount of time being sedentary.⁶ University students represent a large subpopulation of young adults, who generally accumulate low physical activity levels,⁷ with global reports of only 50% of post-secondary students meeting

recommended physical activity guidelines.⁸ It is crucial to motivate university students, who typically have flexible and modifiable lifestyles, to cultivate healthy habits and routines because lifestyles created during the young adult years are likely to track long-term.⁹ Incidental physical activities may provide effective avenues for creating long-term healthy routines; these may include unstructured activity choices such as walking to school rather than taking a car¹⁰ or using the stairs rather than an elevator.¹¹ Participation in incidental physical activity has been deemed a convenient, and potentially effective, way for university students to enhance their lifestyles by increasing their average physical activity levels.¹²

Many post-secondary students are young adults with newly inherited personal responsibilities such as financial and lifestyle independence. Consequently, they may not want to devote additional time, money, energy, and scheduling requirements to participate in planned physical activities such as working out at the gym or playing sports.^{6,13} Promoting staircase use and active transportation (eg, various modes of transportation that require individuals to exert physical efforts

such as walking or biking) could be a difficult task because these behaviors might be perceived as unnecessary inconveniences. For instance, stair climbing is a health promoting behavior that may be incorporated into individuals' daily routines,¹⁴ but proximity of a staircase to the entrance of a building could impact students' decisions to use the stairs.¹⁵ As another example, post-secondary institutions may serve as transit hubs and public transit trips may help students to accumulate some physical activity during their commutes, which might be an ideal mode of transportation for those attending post-secondary schools because it is inexpensive.^{16–18} However, short distance transit trips are problematic for students' activity levels if they replace active transportation trips.^{10,19} Thus, given the potential value of promoting staircase use and active transportation (especially, to replace the more inactive alternatives such as elevator use and short distance transit trips) for enhancing students' physical activity levels, a campus-based intervention may be valuable for encouraging the student population to uptake these behaviors.

Health promotion initiatives should aim to incorporate the priority population's views and opinions, and the goals of a health promotion program should meet individuals' needs.²⁰ Both staircase use and active transportation may be ideal target behaviors for point-of-choice prompts (eg, various types of displays such as posters or signs with informative health messages that help facilitate intentions into behaviors), given each is considered inexpensive and potentially impactful for enhancing post-secondary students' daily physical activity levels.^{11,21} Despite the simplicity of utilizing informative posters or signs to enhance students' engagement in physical activity, it is important to design and use point-of-choice prompts that are suitable, tailored, and appealing to the priority population.²² Additionally, the complexity of the messages presented in point-of-choice prompts may affect individuals' decisions to engage in health promoting behaviors (eg, simple messages are more effective in high-traffic areas).²³ Because it is not known what types of poster designs and messages will be effective for creating physical activity-related point-of-choice prompts that are appealing to the undergraduate student population, it is important to conduct a study to determine students' preferences to ensure optimal impact. As such, the purpose of this study was to determine the most suitable health messages and designs to create point-of-choice prompts for promoting active transportation and staircase use that would appeal to the undergraduate student population at a

large, urban university in Canada. A qualitative study design using focus group discussions provided student participants with the opportunities to voice their opinions, views, and preferences for the most motivational health messages and poster designs. Focus groups were chosen because interactions among the participants tend to elicit insightful information as students share their thoughts and perspectives with each other.²⁴

Methods

Participants and recruitment

The inclusion criteria for this study included undergraduate students who were enrolled in a full-time program at the host university and those who were fluent in English. Upon receiving approval from the Office of Research Ethics, the mass email system from the host university was employed to send a recruitment message to all undergraduate students included within the mailing list (ie, to students who had not opted out from receiving notifications regarding participation in research). In the Fall (2016) semester, recruitment efforts included sending out a mass email to all undergraduate students (28, 560 emails were sent out), snowball sampling (ie, researchers asked potential students to tell their friends about the study), and making one class announcement in a Health Sciences class. In total, 53 students responded via email and 19 students completed screening forms. One student was rejected because the individual was not fluent in English, one individual dropped out from the study, and five students were unable to attend any of the focus groups due to their availability. In summary, three focus groups were conducted and 12 participants were recruited during the Fall semester. Participant recruitment continued in the Winter (2017) semester because data saturation was not achieved. A second mass email was sent out to all undergraduate students (31, 312 emails were sent out), snowball sampling was also employed, and 36 instructors were contacted to make a class announcement or to have them post a recruitment message on their course website. Afterwards, 55 students emailed the investigators and 19 students completed screening forms. Five students were not available to participate in any of the scheduled focus groups, one student was rejected from the study because the individual was enrolled as a part-time student, and four potential participants agreed to attend a focus group but then dropped out from the study. As such, two focus groups and one interview were conducted and nine participants were recruited in the Winter semester. A

Figure 1. Examples of point-of-choice prompts that were shown to participants as potential poster designs and health messages (the images and messages were adapted from the Middlesex-London Health Unit's Physical Activity Toolkit and the University of Toronto's MoveU program).

total of 21 undergraduate students were recruited; 20 full-time students participated in five focus groups and one individual attended a one-on-one interview session due to other students dropping out from the focus group last minute.

Students who contacted the investigators were asked to answer some preliminary questions about themselves during the initial contact in order to assess their eligibility to participate in this study. In accordance with previous recruitment protocols for selecting participants,^{25,26} the investigators divided eligible participants into homogenous groups based on those who met or did not meet the recommendation of 150 minutes or more of moderate- to vigorous-intensity physical activity within the previous seven days, as recommended by the Canadian Physical Activity Guidelines for adults.⁵ Emails were also sent to participants the day prior to the focus groups in order to remind them of the time and location, which is a recommended protocol.²⁷ Participant recruitment ended once the research team concluded that data saturation (ie, no further information could be obtained from holding more focus groups) had been met.

Data collection

At the beginning of each focus group, participants were asked to read a letter of information and sign the consent form. Students who participated in this study were also asked to complete a short demographic survey containing nine questions in order to allow other researchers to determine the potential transferability of the data.²⁶ This study was conducted in the Health Promotion Research Laboratory at the host university during convenient times for participants. No incentive or compensation was provided for participation in this study. Snacks and light

Figure 2. Examples of locations on a university campus for displaying point-of-choice prompts.

refreshments were available for participants during each session. The focus group moderator and an assistant moderator used a semi-structured discussion guide to explore participants' opinions about the most appropriate poster designs and messages for promoting active transportation and staircase use, and the locations they should be placed for maximum impact. To help facilitate this process, multiple photos were shown to focus group participants as examples of potential poster designs (Figure 1) and locations for posting the point-of-choice prompts (Figure 2). Specifically, participants were asked to describe their preferences for specific components of the poster designs (eg, the fonts, colors, and sizes of posters) and health messages (eg, simple or complex messages) that would motivate them to engage in active transportation or staircase use. The discussions lasted between 50 to 80 minutes and were audio recorded with a Sony[®] digital recorder. Guidelines to ensure data trustworthiness were adhered to during data collection and analyses.^{28,29} For instance, during each focus group, member checking was performed between questions and at the conclusion of each session to ensure that all participants' responses were accurately

captured and understood by the investigators. Team meetings between the focus groups' moderator and co-moderator were held to consider and ensure that any possible biases were thoroughly discussed and recorded. Furthermore, the moderator and co-moderator documented and kept notes from each session to ensure that the research process was transparent, and could be potentially replicated by others while also being specifically detailed to support other researchers' decisions to transfer the findings' to other settings and participants.

Data analysis

Data collection and preliminary analysis were performed simultaneously in order to determine when data saturation was met, and the investigators utilized the editing organizing style (as described by Crabtree and Miller, 1999).²⁷ QRS International NVivo (version 11, 2015) was used to code and categorized potential themes from the data. Descriptive statistics of the demographic data were organized within a word document and reported to identify the potential transferability of the data. Comments and responses provided in the focus groups were analyzed using inductive content analysis,²⁶ whereby the major themes that emanated from the data were identified and supporting quotations were provided to illustrate prominent themes. Multiple coders were used (ie, at least two of: the principal investigator, co-investigator, and research assistant) and each researcher independently identified major themes from verbatim transcripts. Importantly, the themes were discussed and agreed upon between the researchers to enhance data confirmability and as such, its trustworthiness.^{28,29}

Results

Demographic information

Overall, 21 undergraduate students (12 participants were sufficiently active) met the inclusion criteria and were included in this study. Although 108 students emailed the investigators about participation, only 38 students completed screening forms, and 26 students agreed to participate in a focus group session (attrition rate of 19.23%). As shown in Table 1, the majority of participants were Caucasian (38.10%), women students (71.43%) from the Faculty of Health Sciences (47.62%) who were between the ages of 20–24 years (57.14%). Most of the respondents lived off campus (71.43%) and only resided in the university's city during the Fall and Winter semesters (76.19%).

Table 1. Demographic information ($N=21$).

Characteristic	<i>n</i>	%
Sex		
Men	6	28.57
Women	15	71.43
Age		
19 years and under	8	38.10
20–24 years	12	57.14
25 years and over	1	4.76
Ethnicity		
Caucasian	8	38.10
East Asian	6	28.57
Other	7	33.33
Program of Registration		
Faculty of Health Sciences	10	47.62
Faculty of Social Science	4	19.05
Faculty of Science	3	14.29
Other	4	19.05
Year of Academic Enrolment		
First	6	28.57
Second	6	28.57
Third	2	9.52
Fourth	7	33.33
Employment Status*		
Not Employed	12	57.14
Part-time	6	28.57
Full-time	1	4.76
Place of Residence		
London, ON (F/W Semesters)	16	76.19
London, ON (F/W/S Semesters)	5	23.81
Living Arrangement		
On Campus	6	28.57
Off Campus	15	71.43

Note. *Some participants did not provide a response to this question.

Simple designs and health messages: tailored point of choice prompts for university students

The responses below encapsulate participants' expressed preferences for the most appealing point-of-choice prompt designs. It was widely recommended by the majority of participants from all focus groups that point-of-choice prompts include brightly colored, simple designs with messages that required few words presented on posters with a solid background. They also underscored the importance of creating messages in a large font size, and specifically using poster printing size A2 (60 cm by 42 cm) or A3 (42 cm by 30 cm) depending on where the poster will be displayed. Participants indicated that posters should be displayed at places on campus with high volumes of daily traffic such as the main library (when the aim is to increase staircase use) and transit hubs (when the goal is to increase active transportation rates and decrease short distance transit trips). Moreover, the simple and short messages for the prompts should be tailored for university students and be interesting enough to catch their attention (eg, by including an interesting fact). Respondents preferred messages that emphasized convenience and productivity (ie, best use of their time) such as, "Regular stair climbing burns more calories per minute than jogging. Raise your level of fitness

one step at a time,”³⁰ and a previously adapted statement, “Skip the wait and take a walk home! Physical activity could be the most productive 30 minutes of your day.”³¹ Specific comments by participants included:

“Simple messages are easier to walk away with and they do not complicate things.” (Active Participant)

“I like the minimalist poster with very few words and it has to have a message as well. I like solid colors; patterns are a little bit distracting I think, so a nice solid color with very few lines of text captures my attention the most.” (Insufficiently Active Participant)

“I think it is important to have an informative message so whether that is like a fact that you will remember or just tell you something that you did not know that will help you remember it.” (Insufficiently Active Participant)

Some participants also suggested including questions and answers on different signs or posters in order to challenge readers and motivate them to perform a behavior such as climbing the stairs (eg, one poster at the bottom of the stairs would have a question and another poster at the top of the stairs would include the answer to the question). Point-of-choice prompts that include various questions may intrigue those who see the displays to perform the behavior by making the activity more fun. The quotation below illustrates the above recommendation:

“I like the idea of asking a question because the poster gets you to think about something as you are walking away.” (Active Participant)

Perceptions of physical activity: healthy students lead active lifestyles

Participants were divided into groups during the screening process based on their weekly activity levels. Overall, more students who participated in this study were considered active (ie, individuals who performed 150 minutes or more of physical activity on a weekly basis) than inactive. For some discussions, active and insufficiently active participants had polarizing opinions about physical activity. Several participants who were considered insufficiently active mentioned that they would prefer to choose the options that required them to exert less physical effort such as taking the elevator or using public transit. In contrast, active participants illustrated how engaging in physical activity would make them feel better throughout a school day. Specifically, the more active individuals expressed support about the different opportunities that allowed

them to be more active on campus such as using the stairs or walking to class. As such, participants who adhered to the physical activity guidelines appeared to have more active lifestyles and may prefer to accumulate activities in small amounts throughout the day compared to those who did not meet the physical activity recommendations. The following quotes highlight the different views that focus group participants shared:

“Sometimes, I am just really tired after class. I just do not feel like walking. I would rather just take the bus...or take the elevator in that building.” (Insufficiently Active Participant)

“I do not like walking, and even if it is a short distance, I would rather take the bus.” (Insufficiently Active Participant)

“I definitely find that I take the stairs because I feel a nice sense of accomplishment, and I know that if I get my heart rate up a little bit, I will be a little more focused on my studies.” (Active Participant)

“I really like walking around from class to class because I find like as a student I do a lot of sitting when I am at the library or in class, and going to the gym too is sometimes hard to fit in. So I try and just walk when I can.” (Active Participant)

In terms of health benefits that could be attained by increasing their physical activity levels, the majority of participants mentioned that they do not have concerns about some physical activity-related improvements for health such as decreasing the likelihood of some chronic illnesses (eg, diabetes and cardiovascular diseases). However, participants were especially interested in improving their mental health by participating in more physical activity. Thus, point-of-choice prompts that are tailored for university students might benefit from including health promoting messages about improving their mental health. The following comment illustrated participants’ particular interest in mental health:

“I would not want to say diseases because, in general, if you say diseases people are kind of more, ‘so what?’ If you say something specific like mental health or something else that is specific to young people.” (Insufficiently Active Participant)

Extrinsic factors that impact Students’ decisions to engage in physical activity: time, built environment, and weather

Several extrinsic and uncontrollable factors reportedly hindered the participants’ decisions to be active. Respondents illustrated that time and convenience

could be a barrier for them to engage in various activities such as walking to school or working out at a fitness center. A point-of-choice prompt that emphasized the benefit of saving time (eg, arriving to a destination faster) was presented as a stronger motivating factor than highlighting health benefits for some participants. For instance, walking to classes on campus was also seen as a convenient way to be more active without having to spend additional time at the gym to work out. As such, time and the perception of convenience when performing an activity affected participants' decisions to engage in different behaviors. The following quotations depict the importance of saving time for participants:

"I would rather take the elevator if it is close instead of going all the way around to the stairs."
(Insufficiently Active Participant)

"I think for me personally, because I live in residence, when I choose to walk sometimes it is motivated by urgency. If there is no bus coming within a certain time period, I know that I have to walk."
(Insufficiently Active Participant)

The built environment on campus reportedly impacted undergraduate students' decision for staircase use and participation in active transportation. Specifically, the proximity of the staircase to the entrance of a building and its visibility were factors for whether or not many participants use a staircase (ie, participants will more likely use visible staircases and those with which they are familiar). Additionally, the staircase itself was deemed to be a barrier for those with heavy bags and/or too much to carry. Furthermore, the availability of bike lanes around the university campus encouraged more participants to ride their bikes to school. The comments below illustrate how the built environment may impact respondents' decisions to be active:

"I think if the stairs are closer to the door you are entering, than the elevator is, then you are more likely to take the stairs." (Insufficiently Active Participant)

"Sometimes, I feel like going up the stairs is a workout for me when my backpack is heavy!" (Active Participant)

"The bike lanes on campus are good and there are always places for you to lock your bike. It definitely helped me in making my decision to bike more to campus." (Active Participant)

Lastly, weather patterns are uncontrollable extrinsic factors that affected participants' choices to engage in active transportation. Participants articulated that they

are more likely to walk or bike when the weather is pleasant (ie, warmer weather and no precipitation). The following statements illustrate participants' preference to engage in active transportation during warmer weather:

"If it is snowing you are more likely to take the bus instead of walk because... you could be warm in the bus for five minutes instead of walking outside for five minutes." (Insufficiently Active Participant)

"I feel like a lot more students walk in the summer, like for me too personally, it is easier to get outside and want to walk when it is nicer out." (Active Participant)

Comment

For over six decades, researchers have informed people about the health benefits of physical activity and attempted to increase physical activity levels around the world with varying success.¹⁻⁵ It is important to focus beyond developing interventions that only consider planned or leisure physical activity, and also aim to enhance individuals' lifestyles by incorporating daily or routine incidental physical activity.^{5,12,21} The results from this study underscored a number of important findings. Primarily, participants' preferred simple point-of-choice prompt designs with tailored messages specific to students' values regarding physical activity based on their current lifestyles. In concert with previous findings,²³ the focus group participants reported that simple messages to promote physical activity were appealing and motivational to them. Researchers should incorporate specific messages that will adequately captivate university students' awareness such as including messages about improving their mental health via physical activity to maximize the impact of point-of-choice prompts. Perhaps something specific to this cohort is that students might be more willing to engage in health promoting behaviors if the displays included a trivia question. This information suggests that health promotion program planners could produce creative prompts that are not typical of most health messages but may be uniquely suitable for this population. Additionally, point-of-choice prompts could simply serve as decorations to improve the ambience within a building, and more esthetically appealing prompts (ie, displays that are designed according to the students' preferences) could also make it easier for students to notice and read the health messages. For example, an unattractive staircase (ie, stairs that are unpainted) could benefit from having colorful prompts displayed to create a

more user-friendly environment to potentially increase its usage.²² It is also important that the point-of-choice prompts are noticeable to students, by displaying larger posters, because they will be competing for their attention with other advertisements and displays around campus. Similar to the findings from previous research, poster printing size A2 was found to be the most effective to significantly increase a health promoting behavior such as staircase use.³² Notably, participants greatly valued their time, and students mentioned that they will often select the most convenience choices presented to them. Hence, tailoring the messages to this priority population should promote the value of saving time as a result of performing a certain action (eg, it takes less time to use the stairs rather than wait for the elevator). It is also crucial to consider uncontrollable factors such as seasonal effects when developing a campus-based intervention with the aim of increasing rates of active transportation among post-secondary students. Furthermore, there are different aspects of the built environment that are positively associated with the participation in physical activity such as the availability of sidewalks, and this may differ in urban and rural areas.³³ This study served as an important preliminary step to identify the needs of the student population in order to develop highly tailored interventions that will meet their recommendations.

Health promotion programs have included different strategies and tools to promote physical activity at the population level, and combining multiple components within a program may increase its success.³⁰ Tailored point-of-choice prompts could be included within social marketing campaigns that aim to increase health promoting behaviors, which utilizes conventional marketing techniques to influence individuals' behaviors in order to improve their personal well-being.³⁴ In particular, a campus-based social marketing campaign focused on the potential benefits of physical activity specific to students' values, such as those related to improved academic performances, may encourage their increased uptake, and could fit within a health promotion framework.^{31,35} As such, point-of-choice prompts could serve as effective cues to help motivate university students to engage in healthier lifestyles and could be used as part of a social marketing campaign that promote physical activity on a post-secondary campus.^{11,21} For example, a social marketing campaign at a Canadian university was conducted and utilized focus groups to identify motivational factors for engaging in physical activity before implementing their program.³¹ The researchers found that some students thought that physical activity was a healthy and social activity that

made them feel more productive, and the results indicated that the program may potentially help enhance some students' physical activity levels.³¹ Furthermore, in order to establish a sound rationale for any physical activity program, tools that are utilized within the program need to be clearly explained during the planning and development phase. Therefore, it is important to recognize that point-of-choice prompts are meant to help facilitate individuals' intentions into behaviors (eg, having a poster displayed where an individual has to decide whether to use the staircase or elevator) compared to motivational posters, which are meant to enhance individuals' attitudes toward a behavior (eg, a poster in an elevator that promote the health benefits of staircase use).³⁰ A clear explanation of the tool used within a physical activity program could help relieve any possible confusions that might occur, and ensure that the program is replicable by others.

The insights gained from the participants of this study are valuable considering it is essential to find different ways to motivate inactive undergraduate students who are at highest risks of developing poor behavioral routines beyond early adulthood.⁹ In particular, researchers have also reported that inactive individuals may actually achieve the most health benefits with modest improvements to their physical activity levels.^{4,5} Although there have been mixed outcomes for interventions that targeted incidental physical activity in the past,¹² conducting a study to determine what the priority population will be most receptive to is a salient first step to understanding this cohort before implementing a health promotion program.²⁰ In other words, it is crucial to properly plan a health promotion program before moving to the implementation phase in order to thoroughly consider the various components that should be included within the program. Researchers suggested that interventions that incorporate multiple components (eg, motivational signs and point-of-choice prompts) are potentially more beneficial and may have greater buy-in from the population.^{30,31} Furthermore, individuals' behavioral patterns are important to consider when developing interventions to enhance physical activity routines because people's daily routines are developed through the formation of habits.³⁶⁻³⁸ If used well, point-of-choice prompts are tools that could help create and/or disrupt negative behavioral patterns in order to support students' participation in physical activity, which could lead to healthier lifestyle choices. As such, it is necessary to aid the student population to find the motivation to initiate and maintain active lifestyles because the routines and habits may

ultimately last a lifetime. Therefore, it is crucial to understand the priority population's perspectives and preferences in order to create the most effective point-of-choice prompts that are tailored for a cohort.

Limitations and future directions

A number of limitations from the current study warrant discussion. First, although honesty demands were used to help reduce the likelihood, social desirability bias could have influenced participants to provide dishonest responses.³⁹ For example, focus group participants may have wanted to appear more active than they actually were in order to please the focus group moderators, who conduct physical activity research. Self-selection bias is also a potential limitation for this study because the majority of students who participated in this study were students from the Faculty of Health Sciences, which could have meant that the participants had greater knowledge and interest in physical activity than a typical student. Despite multiple recruitment methods to attempt to invite a wide variety of students from different faculties from the host university, a fairly homogeneous sample was secured, and a relatively small one at that. Although data saturation was reached, this study included a small sample of Canadian university students who were young adults, which might limit the possibility of the findings being transferrable or representative of other cohorts or the general population of Canadian undergraduates. As such, the findings from this study could be limited and any further inferences should be made with caution.

Future research should focus on exploring and implementing the use of point-of-choice prompts to increase staircase use and active transportation rates through a campus-based health promotion program targeting post-secondary students. The results from this study could be utilized to guide the creation of the posters or signs (eg, the poster design and messaging) for any future interventions that aims to incorporate point-of-choice prompts on post-secondary campuses. In order to investigate the effectiveness of point-of-choice prompts for improving rates of both staircase use and active transportation on a post-secondary campus, investigators may need to conduct multiple studies to identify the impact of the intervention for both behaviors. It is also important that researchers consider the use of point-of-choice prompts to increase physical activity levels among other cohorts such as secondary school students and older adults in order to better understand the efficacy

of this particular intervention for improving rates of physical activity at the population level.

Conclusion

University students may feel overloaded with responsibilities and perceive that they have little time to schedule physical activity into their daily lives. Consequently, some may find themselves stuck in negative behavioral patterns. Point-of-choice prompts that are tailored for the student population may serve as powerful cues to disrupt unhealthy routines and help foster positive decisions and changes in order to motivate students to be active. The findings from this study illustrate students' preferences for simple poster designs and messages, which will help customize suitable point-of-choice prompts to encourage students to incorporate routines to enhance their active lifestyles. In conclusion, motivating university students to engage in more physical activity will translate to positive health trends for future generations, and doing so via incidental physical activity could represent an appropriate public health approach.

Conflict of interest disclosure

The authors have no conflicts of interest to report. The authors confirm that the research presented in this article met the ethical guidelines, including adherence to the legal requirements, of Canada and received approval from the Office of Research Ethics at Western University.

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