The Use of Social Media in a Physical Activity Campaign: MoveU

by

Alicia Marie Teresa Luciani

A thesis submitted in conformity with the requirements for the degree of Master of Science
Graduate Department of Exercise Sciences
University of Toronto

© Copyright by Alicia Luciani 2015
The Use of Social Media in a Physical Activity Campaign: MoveU

Alicia Luciani

Master of Science

Exercise Sciences
University of Toronto
2015

Abstract

This study used mixed methods to explore the role of a social media platform (Facebook) in supporting a social marketing physical activity (PA) campaign (“MoveU”) targeting first year undergraduate females. It comprised one-on-one interviews with nine key partners involved in the campaign's development and implementation; six focus groups with the target audience; and analytic data combined with a content analysis of posts delivered by MoveU on the Facebook page. This evaluation highlights that Facebook can be used to assist in some PA campaign goals such as reaching a target audience while simultaneously promoting existing opportunities to be physically active. However, campaign partners had unrealistic expectations about how “social media” could be used to engage the audience in multi-way conversations, as seen in modest engagement with MoveU’s Facebook page. The meaning behind engagement metrics, as well as theoretical and methodological implications of the findings, are discussed.
Acknowledgments

Many thanks to my advisor, Dr. Guy Faulkner, for overseeing this project and being a great supervisor and mentor during my graduate school studies. I am grateful to have worked under the supervision of an incredibly knowledgeable, well respected and patient supervisor who always seems to have the answer to everything. Many thanks to Dr. Catherine Sabiston, Dr. Margaret McNeill, and Dr. Subha Ramanathan for providing guidance and different perspectives to this project. I would also like to thank everyone involved in the MoveU campaign, who kindly welcomed me to assist in the evaluation of a campaign that I am incredibly proud to have been involved in, specifically Michelle Brownrigg who spearheaded the whole campaign and has been incredibly supportive of my research. Thank you to all of the people who participated as research participants in this project, whom this project would not have existed without!

This graduate school experience would not be meaningful without having my friends and family to share it all with. I would like to thank my friends and colleagues in the Health and Exercise Psychology Unit (HEP-U!) for their advice and guidance throughout this process, and for being great listeners during the most stressful of times. A special thanks to Lauren White who was my backbone throughout this entire process, I know I would not have been as happy and therefore successful as I have been without her friendship and our consistent laughs. I would also like to thank the friends I have made within the Faculty of Kinesiology and Exercise Sciences - I have learned so much from these intelligent and kind people who have been incredibly supportive. I would also like to thank my friends outside of graduate school who have been very supportive, and have stood by me while I have been immersed in this graduate school experience. Lastly, I’d like to thank my family. More than anyone else, I have always looked up to my father who pushes me to excellence, but has always encouraged a “work hard, play hard” balance, which are words I live by. My older brother has shown me unending support through all facets of my life, and I hope to emulate his ambition. My mom, with her youthful, happy spirit, has taught me that it is the simple things in life that are the most important, and that always helps me keep things in perspective. Thank you everyone for your unending and unconditional support and patience.
Table of Contents

Contents

Acknowledgments ...................................................................................................................................... iii
Table of Contents .................................................................................................................................. iv
List of Tables ........................................................................................................................................ viii
List of Figures ....................................................................................................................................... ix
Chapter 1 Introduction ................................................................................................................... 1
  1 Introduction ................................................................................................................................... 1
Chapter 2 Review of the Literature .............................................................................................. 3
  2 Review of the literature ................................................................................................................ 3
    2.1 Physical activity: importance and age related decline ...................................................... 3
    2.2 Gender differences in PA ................................................................................................. 4
    2.3 Decline in PA ..................................................................................................................... 5
    2.4 Life transition to post-secondary institutions ............................................................... 6
    2.5 The MoveU campaign ..................................................................................................... 7
      2.5.1 Research context: The University of Toronto ....................................................... 8
      2.5.2 Key elements to the MoveU campaign ................................................................. 9
    2.6 Social marketing: Overview ........................................................................................... 10
      2.6.1 Theoretical tenets of social marketing theory ..................................................... 10
      2.6.2 The “marketing mix” and MoveU ........................................................................ 11
      2.6.3 The use of theory to guide social marketing ....................................................... 14
      2.6.4 Criticisms of social marketing theory ............................................................... 15
      2.6.5 Use of social marketing to inform PA campaigns and interventions .......... 16
    2.7 Social media and SNS in health promotion .................................................................... 18
      2.7.1 Overview: Who uses SNS .................................................................................. 18
      2.7.2 Background on Facebook .................................................................................. 18
4.3 Goals and purposes of the MoveU social media component: Results from partner interviews ...................................................................................................................... 67
  4.3.1 Increase brand awareness of MoveU ................................................................. 67
  4.3.2 Increase number of followers ............................................................................. 68
  4.3.3 Reach the target audience ................................................................................. 68
  4.3.4 Multi-way engagement and discussion ............................................................... 69
  4.3.5 Get students thinking about PA .......................................................................... 69
  4.3.6 Deliver the main MoveU messages .................................................................... 70
  4.3.7 Disseminate recreational information and information about campus events .... 71

4.4 Results from phase two: Tracking of the MoveU Facebook page using content analysis and Facebook analytics ................................................................................... 72
  4.4.1 Reach ................................................................................................................ 72
  4.4.2 Posts: Descriptive overview ............................................................................... 74
  4.4.3 Engagement with posts ...................................................................................... 78
  4.4.4 Summary: Reach and engagement .................................................................... 79

4.5 Results from phase three: Reception of social media by students ................................. 79
  4.5.1 How students became aware of MoveU social media ........................................ 79
  4.5.2 What students recall about messages from social media ................................... 80
  4.5.3 Events attended because of social media .......................................................... 81
  4.5.4 What students want to see in a social media page for PA promotion ................. 82

Chapter 5 Discussion ............................................................................................................. 86

5 Discussion ............................................................................................................................ 86
  5.1 Overview ....................................................................................................................... 86
    5.1.1 Social media holds potential, but are students actually using it for health purposes? .............................................................................................................. 86
    5.1.2 Effectiveness of MoveU’s social media according to goals and purposes ........ 89
    5.1.3 Current issues in SNS for health promotion as seen through the lens of MoveU ................................................................................................. 95
    5.1.4 Critical reflections on behaviour change theory and social marketing ........... 97
List of Tables

Table 1. Evaluation Framework, Key Performance Indicators (KPI's), Definitions, and Associated Metrics from Facebook Insights.................................................................42

Table 2. Characteristics of Focus Group Participants...........................................53

Table 3. Demographics of MoveU Facebook page Fans as of April 28, 2014..........74

Table 4. Means and Frequencies of Indicators of Reach and Engagement in Relation to Content Analysis Codes.................................................................76

Table 5. Means and Frequencies of Indicators of Reach and Engagement in Relation to Time Posted.........................................................................................77

Table 6. Coding Scheme for Facebook Content Analysis: Examples.....................122
List of Figures

Figure 1. Theoretical Framework for Overall MoveU Evaluation (Adapted from McGuire’s Hierarchy of Effects Model)………………………………………………………………………………..15

Figure 2. Three Phase Mixed Methods Evaluation of the Social Media Component of the MoveU Campaign…………………………………………………………………………………………..34

Figure 3. Growth in MoveU Facebook “Page Likes” Over Time………………………….72

Figure 4. MoveU Facebook Page Reach versus “Page Likes” per day……………………..73
1 Introduction

I remember the day I was peer pressured into getting a Facebook account by a friend from my soccer team. Everybody at her high school in King City had it, she said. Nobody at my high school in Maple had it, I said. She assured me that, not to worry, soon everybody would have Facebook. Almost a decade and 1.32 billion monthly active users on Facebook later, I have found myself defending my Master’s thesis on this exact site. One does not have to look far to learn a range of stories that people have to share about their experiences with Facebook, from stories that entail stress, embarrassment, laughter, tears, and relationship beginnings and endings.

The power of social networking sites (SNS) does not just exist online in cyberspace. SNS like Facebook have revolutionized the way we are present in our everyday lives. For many, unless a camera is capturing moments that can be shared with friends on SNS, it feels like that moment never happened. The 140 characters allowed in a single Twitter post have become an invaluable resource for sentiment analysis and political mining. This means that social media holds the power to use predictive analytics to determine what will happen by capturing what people are thinking, and even more astoundingly, the power to manipulate voters and buyers. Facebook can even be used to predict things like the potential of relationships lasting, by looking at a constellation of interconnections and associations. SNS have proliferated the world and are relevant as indispensable tools for almost any topic imaginable. Accordingly, every single sector has needed to adapt to meet the needs of a demanding society that wants everything to be quick, convenient, and fed to them in bite sized pieces.

Within a modern health information environment, there are several mediums by which health resources are presented. Not surprisingly, since SNS like Facebook have become an integrated part of so many people’s lives, health promoters have exploited the opportunity to populate SNS with health information to provide target audiences with easy accessible information that supports a healthier lifestyle. As social marketing expert R. Craig Lefebvre (2007) noted, while we have always been aware that there are social influences for many of the health behaviours we
seek to influence for the improvement of public health, these social technologies (SNS) are changing the weights we use in our (current) models of determinants of behaviour and the ways in which we approach modifying them. This means that the need for a comprehensive understanding of how to harness social media in behaviour change campaigns cannot be understated.

Admittedly, when the term social media comes to mind, the immediate connection I make is not to health promotion. With that being said, when the idea to explore the use of social media in a PA promotion campaign at the University of Toronto called MoveU was brought to my attention by my supervisor, Dr. Guy Faulkner, I could not help but experience a range of feelings from intrigue to skepticism—I get to study social media!? Soon after I began my studies, an article was published in the Toronto Star entitled, “Tweet yourself thin? New research suggests Twitter can help dieters,” which highlighted results from a published study by Turner McGrievy and Tate (2013) that found that, “every 10 posts on Twitter corresponded to about a 0.5 per cent drop in body weight (sic)” (Menon, 2013). It was then that I became excited about this topic as well as being one of the first researchers to undertake an examination of social media in the PA context. Now-a-days, we think social media needs to be used for everything, but we need to know how to use it effectively and if it is actually working in a productive way. Studying the use of social media in health promotion proved to be a more challenging and intellectually stimulating task than I had ever imagined, as I ended up at intersections between communication, social marketing, social media, gender and western society, PA, behaviour change theory, and multiple research methodologies. On a more pragmatic level, I understand that the changes and evolutions in SNS are more pervasive than the cycle of a normal study, from its inception to publication. The rate at which technology is developing means that we as researchers cannot skip a beat in terms of exploring how to best harness social media for the public health and the greater good. In the future I am sure that Facebook will have its own currency, and economic system, which will vastly influence the ways in which social media is harnessed for health promotion, and how the effects of this are subsequently evaluated. Despite all of this, it is my hopes that the underlying lessons learned from my study as well as the way I go about answering my research questions, can be adapted and carried forward as the technology continues to grow and evolve.
Chapter 2 Review of the Literature

2 Review of the literature

2.1 Physical activity: importance and age related decline

Physical activity (PA) is associated with a range of beneficial health indicators, including primary and secondary prevention of several chronic diseases (Warburton, Nicol, & Bredin, 2006). Moreover, active involvement in PA may have beneficial effects related to various psychosocial outcomes for adolescents such as self-esteem, cognitive performance and academic achievement (Biddle & Asare, 2011). PA related mental health benefits also include improved mood, reduced symptoms of depression and anxiety, as well as possible prevention of the onset of depression (Penedo & Dahn, 2005).

Population surveys show that, despite the strong evidence linking PA with a variety of benefits, only about 15% of Canadian adults aged 18-64 are active enough to achieve health benefits by meeting the Canadian PA recommendations of 150 minutes of moderate-to-vigorous intensity aerobic PA (MVPA) per week, in bouts of 10 minutes or more (Colley et al., 2011b; Tremblay et al., 2011). Moderate intensity physical activities include brisk walking, bike riding and other activities that cause adults to sweat and breathe harder while vigorous intensity physical activities include jogging and other activities that cause adults to sweat and be out of breath (Canadian Physical Activity Guidelines, 2011). Furthermore, based on objective measures, only 9% of boys and 4% of girls aged 6 to 19 years accumulate the Canadian PA recommendations of 60 minutes of MVPA on at least 6 days of the week (Colley et al., 2011a). These percentages decline significantly with increasing age (i.e., from 6-to-10 year-olds to 15-to-19 year olds) (Colley et al., 2011a). Furthermore, longitudinal studies that have observed the continuity of PA from childhood and adolescence to adulthood have supported the hypothesis that participation in sport and PA from a young age tracks into adulthood, regardless of the type of activity (Telama, 2009; Telama et al., 2014). Given the known relationship between PA and health status at all ages, it is of great importance for public health to ensure that people are physically active from a young age.
2.2 Gender differences in PA

Of particular importance when analyzing PA trends is the consistently observed gender differences in PA levels, whereby males are more active than females. In a longitudinal, nationally representative sample of grades 7 through 12 adolescents in the U.S., inactivity patterns were exaggerated for females compared to males, and for older adolescents (Gordon-Larsen, McMurray, & Popkin, 2000). Furthermore, Statistics Canada’s report on the PA levels of youth highlights that this gender disparity in objectively measured PA is consistent across all ages and all PA criteria (e.g., 30, 60, and 90 minutes on 1-6 days per week) (Colley et al., 2011a).

There is a complex interplay of potential reasons for the gender differences in PA participation across all ages, including socio-cultural influences, differences in the availability of sporting options, socialization into sport and PA, past experiences, and competence beliefs (Daigle, 2003; Slater & Tiggemann, 2011). Many investigators of gender differences in PA have focused on socialization into sport and PA, which involves the influence of family, friends, or the school. This research would suggest that males’ greater and earlier exposure to sport would strengthen their predisposition to sport and PA involvement. In terms of past experiences and competence beliefs, although inconclusive, some research suggests that girls’ physical education memories are often negative, in terms of feeling incompetent, being negatively evaluated, and not having enough choice, which can reduce girls’ interests in PA and sports (Vilhjalmsson & Kristjansdottir, 2003).

There is an intersection amongst many of the factors related to lower levels of PA participation among females. One of the greatest influences that weaves through these factors are socio-cultural influences, such as idealized constructions of femininity in contemporary western culture which play a critical role in perceptions of, and choices in sport and physical activities. In a study that investigated how the meaning of PA is mediated by constructions of gender among young women who have already left high school (ages 20-24), Gilchrist (2004) found that women’s motivations to be physically active arise from their gendered constructions of PA in various realms, such as their concern with appearance and body image. This is in line with some of the main findings from researchers that have explored fitness media, specifically that obtaining an ideal body shape dominates exercise practices, and that participants gain self-
confidence when they look good (Markula & Kennedy, 2011). In a study that analyzed how fitness oriented women’s magazines discursively construct PA for women, Kennedy and Pappa (2011) found that although words and images in these magazines construct exercise as a way of achieving the desired future self, readers are reminded that this ideal is out of reach, which makes exercise a “minefield of anxiety and confusion” (Kennedy & Pappa, 2011, p.40).

Evidently, a certain body type has been normalized as ideal in contemporary westernized culture by linking it to looks of both beauty and health, which can result in fitness practices becoming discipline techniques (Kennedy & Pappa, 2011, p.13). It is possible that these unattainable ideals (i.e., of building a perfect body) are not strong enough of motivators to sustain a physically active lifestyle throughout life. It is important not only that PA programs reflect women’s interests and motivations, but that messaging with respect to PA for women does not reflect these social, gendered constructions. Health promoters need to be cognizant of this and be responsible in the knowledge that they are transmitting.

### 2.3 Decline in PA

A consistent finding in the literature regarding PA in youth is that childhood is the most physically active time of life, after which PA levels decline with increasing age (Caspersen, Pereira, & Curran, 2000; Trost et al., 2002; Van Mechelen, Twisk, Post, Snel, & Kemper, 2000). According to the Active Healthy Kids Canada report, which is the most comprehensive annual assessment of child and youth PA in Canada, there is a consistent drop-off in PA levels from as early as age 10 with a steady decline through adolescence (i.e., until 19 years old) (Active Healthy Kids Canada, 2012). In a cross-sectional data analysis, Casperson and colleagues (2000) found that the prevalence of adolescents reporting regular, sustained PA (defined as five or more days per week and 30 or more minutes per occasion of walking or bicycling) dropped 16 percentage points for males and 10 percentage points for females, across the ages of 12 to 21 years. Furthermore, results from this study indicated that the steepest decline in PA patterns was from ages 15-18, and PA continued to decline through young adulthood (defined as 18-29 years). The authors concluded that the 15-18 year old age range presents a critical period for early intervention (Caspersen et al., 2000). Notably, this time period encompasses the transition of an adolescent into early adulthood, which also represents the time period when an adolescent undergoes high school graduation. When this decline is examined further within the specific context of post-secondary schooling, it appears to occur during the transition to first year at a
post-secondary institution (Bray & Born, 2004; Kwan, Bray & Martin Ginis, 2009; Kwan, Cairney, Faulkner & Pullenayegum, 2012). For example, in a sample of 145 Canadian undergraduate students, there was a significant decline in self-reported vigorous PA (VPA) during the transition from the last 2 months of high school to the first 2 months of university (Bray & Born, 2004).

Several factors have been highlighted that can account for this decline which include finishing school and either entering the workforce or starting post-secondary schooling, which can impinge on leisure time through its effect on a change in lifestyle patterns caused by the competing demands of work or post-secondary study (Leslie, Fotheringham, Owen, & Bauman, 2001). The decline exists among both males and females, albeit it is steeper for males. However, females are less active than their male counterparts before this transition, for various reasons as described above, and thus continue to remain at a lower level (Kwan et al., 2012). Given these salient declines during the transition into early adulthood, and the fact that older adolescents/young adults have been “de-activating” for several years, there has been an emerging body of research that has begun to focus on the first-year university student population.

2.4 Life transition to post-secondary institutions

Many new lifestyle behaviours, both positive and negative, are formed during the high school to post-secondary school transition (Nelson, Story, Larson, Neumark-Sztainer, & Lytle, 2008). This transition occurs during a period called “emerging adulthood,” (i.e., 18-25 years of age) which Nelson et al. (2008) describe as a developmentally unique stage of life, characterized by transitions such as leaving home, increasing autonomy and decision-making, self-identity development, changing support systems, and shifting interpersonal influences. Particularly for those who are adjusting to post-secondary institutions, this adjustment generally involves the need to cope with and balance personal freedom and decision making as well as new demands such as academic, social, personal, and emotional ones (Sharma, 2012). This new found independence for many, introduces the adoption of new lifelong health behaviour patterns (Leslie et al., 2001; Nelson et al., 2008). Thus, from a PA promotion perspective, post-secondary institutions are well-suited for implementing PA interventions. In addition, PA can be very convenient and enjoyable in the university setting because of access to facilities, intramural sports, sports clubs, and the social aspect to PA, among other reasons (Leslie et al., 2001).
In order to develop effective PA interventions for this population, it is important to understand the modifiable determinants of PA during the transition, as well as issues that are of importance among this “transitioning” population, and their association with the PA decrease. In a study that assessed barriers to being active among post-secondary students and compared active and inactive students on various psychosocial variables, Powell & Sallis (2004) found that the strongest associations with PA status were perceived barriers (such as lack of self-discipline, lack of time, and lack of energy) and social support. Other barriers to healthy lifestyle behaviours that post-secondary youth experience include high stress, poor sleep, and time management challenges (Nelson et al., 2008). Thus, health choices at this time are greatly impacted by one’s academic related challenges which include time and stress-related challenges. Health behaviour promotion interventions may be more effective if they help students navigate these challenges that are of such importance to them (Nelson et al., 2008).

Given the lifestyle changes that most college/university students experience when transitioning from adolescence to adulthood, alongside the growing literature highlighting the substantial decline in PA levels from the high school to post-secondary school transition (Bray & Born, 2004; Kwan, Bray & Martin Ginis, 2009), there is a recognized need for PA interventions in this group. Kwan et al. (2012) further recommend that campus-based PA interventions should be tailored on the basis of gender, specifically aimed at preventing declines in PA participation for men and increasing PA levels for women. This may be because, as discussed earlier, gender does play a role in PA participation and there is a difference in the trajectories of PA change among males and females. Thus, factors that lead to gender differences, such as appearance and body image concerns as well as perceptions of social support from significant others (i.e., Daigle, 2003; Slater & Tiggemann, 2011) can become better targeted in interventions tailoring to specific genders.

2.5 The MoveU campaign

In response to the recent findings highlighting the steep drop off in PA levels during the high school to university transition, as well as the consistently reported gender disparities in PA levels, the University of Toronto, in collaboration with ParticipACTION, developed a tri-campus campaign called MoveU. MoveU is an ongoing initiative designed to increase active healthy living in first year post-secondary female students. The campaign aims to promote,
communicate, and engage students “in a manner that supports and is integrated with their overall student experience and educational development” (MoveU: Partnering to increase active healthy living among students, 2013). The campaign was launched in the fall of 2012 and will span a four-year period until 2016.

2.5.1 Research context: The University of Toronto

The University of Toronto has three campuses: Downtown Toronto (St. George), Mississauga (in the west) and Scarborough (in the east). Among those three campuses, there are over 700 different undergraduate programs. In the fall of 2013-2014 (i.e., the year that this evaluation took place), there were 67,128 undergraduates enrolled, 85% of them being domestic students. About 91% of the undergraduates were full time students. About 64% of those undergraduates attend the St. George campus (“UTSG”), 19% the Mississauga campus (“UTM”) and 17% the Scarborough campus (“UTSC”).

In the fall of 2013-2014, UofT (all three campuses) had 14,214 new full time students entering “First Entry” undergraduate programs, meaning about 21% of students in the 2013-2014 academic year were first year students (7,831 at the St. George Campus; 3,317 at the Mississauga Campus; and 3,066 at the Scarborough Campus). The St. George campus is larger in size and accommodates 6,514 students in residences while Mississauga can accommodate 1,535 students in residences and Scarborough can accommodate 765 students in residence. 56.3% of full time (FT) undergraduate students identified as female and 49.4% of part time (PT) undergraduate students identified as female, with a median age of 20.9 and 23.1, respectively (“Quick Facts,” 2014). The breakdown of gender in first year students is not specified on the UofT information page, but if about 91% of students were full time and 9% were part time, then about 8,000 first year students were female.

The three UofT campuses have several recreational facilities, intramural competitions, sports clubs, paid/registered programs and drop-in exercise classes, among other initiatives (“Athletics,” 2014). Thus, there are many ways for students to maintain a healthy lifestyle at these campuses as they all provide a physical environment that makes PA convenient and accessible. The National College Health Assessment (NCHA) is a survey that was conducted in 2013 at all three UofT campuses, in order to assess health status and engagement in various health behaviours. There were 2784 survey respondents and overall, 12.5% of students across all
three campuses were meeting the Canadian adult PA guidelines of accumulating 150 minutes or more of MVPA per week. Split by campus, 11.3%, 9.7%, and 15.1% of students were meeting these guidelines at UTM, UTSC, and UTSG, respectively. Furthermore, across all three campuses, 18.5% of males, compared to 10% of females were meeting the Canadian PA guidelines, and there was an overall significant difference in MVPA levels between genders \( (p < .001) \). In light of this, the University of Toronto is a campus that is representative of the concerning levels of PA among young adults in the general population, and the significantly lower levels of MVPA among females, compared to males.

### 2.5.2 Key elements to the MoveU campaign

One of the key gaps that exists in post-secondary institutions is that of cross-departmental initiatives that leverage and share resources with students and outside partners to reach mutual objectives \( (MoveU: Partnering to increase active healthy living among students, 2013) \). MoveU is a broad engagement strategy involving a unique collaboration of on and off campus partners. On-campus partners include the UofT Faculty of Kinesiology & Physical Education, Student Life Health and Wellness and Hart House, as well as partners from the University of Toronto Mississauga and Scarborough campuses (UTM and UTSC). Off campus, UofT’s Faculty of Kinesiology and Physical Education partnered with ParticipACTION, which is Canada’s national voice for PA and sport, and the Ontario Trillium Foundation which supports MoveU programs and research through funding. Together, these partners are in charge of various aspects of the MoveU campaign, including campaign design, marketing and social media, programming, and hiring and facilitating peer leaders, described below.

One of key components of MoveU is the community engagement strategy via the presence of student-led peer-to-peer community engagement teams on each campus, who will also be referred to as “peer leaders.” The peer leaders are male and female UofT students from various programs and years of study. Some peer leader positions are paid and some are volunteer. The structure of the peer leader teams as well as the number of students involved varies depending on the campus. The peer leaders interact with students on the ground, by promoting the campaign and its activities, setting up booths around campus, and helping to host MoveU events and other broader campus events. They are meant to be a visible presence around campus, and wear bright MoveU shirts to distinguish them.
The design of MoveU was guided by social marketing principles, which is an approach that is frequently used in health promotion. An overview of the theoretical tenets of social marketing as well as its application to health promotion and PA behaviour change is presented below.

2.6 Social marketing: Overview

In this section, the origins and evolution of social marketing theory will be explored in order to describe its key theoretical foundations. A brief history of social marketing provides the relevant introduction and context in terms of how it is currently applied to health promotion and more specifically, to PA promotion. The central tenets of the social marketing process will be described by using MoveU as a “case study” while also providing more detail about the campaign. Then, a look into McGuire’s Hierarchy of Effects (HOE) Model, its relevance to social marketing, and its application to the evaluation of the MoveU campaign will be explained.

2.6.1 Theoretical tenets of social marketing theory

Social marketing is an approach that, as its name suggests, has its roots in commercial marketing because it was believed that specific social needs and social problems such as pollution control, mass transit, private education, drug abuse, and private medicine could benefit from marketing thinking (Kotler & Zaltman, 1971). Thus, the product that is sold is not a tangible item, rather it may be ideas, behaviours, or services (Lamptey & Price, 1998). Despite early calls for social marketing to be concerned with social and population based behaviour change (Kotler & Zaltman, 1971; Lefebvre & Flora, 1988), many subsequent definitions of social marketing have promoted individual behaviour change for the common good (Andreasen, 1995; Kotler & Lee, 2008; Lotenberg & Siegel, 2008). By definition, social marketing is “the application of marketing technologies developed in the commercial sector to the solution of social problems where the bottom line is behaviour change” (Andreasen, 1995, p.3).

One of the key theories that guides social marketing is economic exchange theory which posits that human choices are formed by the use of a cost-benefit analysis and the comparison of alternatives (Andreasen, 2002). Thus, a key component of social marketing is extensive formative research to understand why a target audience (the consumer) acts a certain way, what they value, and their perceived costs and benefits of changing (Maibach et al., 2002). This puts
the target audience at the very core of the social marketing approach (Andreasen, 1995, p.xii). Although social marketing applies commercial ideas and methods, social marketers do not try to impose their own values and beliefs; rather, they recognize that the target audience will only take action when they believe it is in their own interests (Andreasen, 1995, p.14).

2.6.2 The “marketing mix” and MoveU

Historically, social marketing has suffered from a lack of understanding whereby people often confuse it as just being advertising. The pioneers of social marketing attest that advertising is just as important as the other components of one of the most recognizable features of social marketing called the “Marketing Mix” of product, price, place, and promotion (Lombardo & Léger, 2006). The following will describe the marketing mix in terms of how MoveU applies it:

1. The core product of the campaign is the behaviour that is being targeted for change. In the case of MoveU, the product is PA behaviour. More specifically, it is PA as being an integral part of the overall student and educational experience.

2. The price represents the psychosocial costs of “using” the product in terms of other competing forces (Kotler et al., 2002). In the case of MoveU, there is an exchange in terms of the price of being more physically active (i.e., time, effort, anxiety, and embarrassment) and things that students value. Formative research with the target audience revealed that messaging associated with PA being “anything you want it to be” as well as the academic-related benefits of PA (i.e., PA is “you at your most productive”) and its association with better sleep, less stress and better grades, were top rated among first year students. Thus, MoveU tailored its messages accordingly, to emphasize this exchange. MoveU does not emphasize the benefits of PA for things like weight loss and body image.

3. Place refers to where the product is offered or advertised, which should ideally reflect where the target audience spends their time, makes the health decisions and is “close” to the behaviour (Kotler et al., 2002; Maibach et al., 2002). MoveU tries to makes good use of places likely to reach students, such as libraries, the recreational centers, washroom stalls, and common spaces with high student volume. MoveU messages are also distributed through various social media accounts (Facebook, Twitter, Instagram).
4. Promotion refers to the message itself, and how it is conveyed through distribution channels (Kotler et al., 2002). Promotion of MoveU is the most visible component of marketing. The MoveU message that is at the core of outreach and engagement focuses on PA being “anything you want it to be,” which focuses on joy, enjoyment, and fun, without being prescriptive in terms of PA being a chore (MoveU: Partnering to increase active healthy living among students, 2013). As mentioned above, MoveU uses multiple channels for message promotion including printed advertising, promotional items/prizes (MoveU branded Frisbees, pins, water bottles), banners, special events, peer-to-peer encounters, and social media. MoveU tries to incorporate different body types, genders, ethnicities, and different abled bodies on its posters and other graphic design elements so as to not marginalize or ignore anybody.

Notably, MoveU provides its own branded events such as themed skating events for UofT students. MoveU also gets embedded into broader partner and community UofT events and displays across campus, through its collaboration with campus student clubs (i.e., campus arts and culture organizations), recreation programming, student services departments, and even classes. This means that if a different UofT club is having an event, MoveU tries to be present there and distributes an inventory of MoveU branded promotional items such as buttons, postcards, water bottles, and Frisbees.

In acknowledgement of the proliferation of today’s rapidly evolving technologically driven environment, another central element to the overall social marketing strategy for the MoveU campaign is the “social media” component. In its first year, MoveU leveraged two social media platforms, the social networking site Facebook and the microblog Twitter, as adjunctive promotion/communication platforms. The MoveU Facebook and Twitter pages were created in line with the timing of the implementation of the MoveU campaign in 2012 by the partners involved in the campaign, and there is only one Facebook and Twitter MoveU page for all three campuses. At first, the campaign partners from all three campuses were in charge of posting on the MoveU Facebook and Twitter accounts, however, posts are now delivered by students who are hired to post to the accounts (not the peer leaders). The social media component of the MoveU campaign is managed and overseen by a full time employee in the Communications department in the Faculty of Kinesiology and Physical Education at the St. George Campus of the University of Toronto.
2.6.2.1 Background: Definitions and understanding of social media and where MoveU’s social media strategy fits in

Over the years, there has been a shift from traditional forms of one-way communication to a multi-way, dynamic, interactive, conversation, as evidenced by the explosion of social media (Boundless, 2015; Gold et al., 2011). There are several types of online platforms and applications that allow interactive activities and multi-way information sharing, and are thus classified under the umbrella of social media (Bennett & Glasgow, 2009, Boundless, 2015). Social networking sites (SNS) are the most popular types of social media (Boundless, 2015). SNS are online spaces that allow individuals to present themselves via a public or semi-public personal profile within a bounded system (Boyd & Ellison, 2007; Cain, 2008). SNS are used to connect with friends, colleagues, and other users in order to share media, content, and communications, and examples include Facebook, LinkedIn, and MySpace (Boundless, 2015). Twitter is a microblogging site as it features short posts, as opposed to journal-style posts and is thus particularly common and suitable for posting quick content (Boundless, 2015). SNS such as Facebook also have microblogging features. Evidently, there are different forms of social media with distinguishing features (such as having a personal profile being one of the distinguishing features of SNS or being restricted to a few lines of text being the distinguishing feature of microblogs).

Within this thesis, the use of these platforms was considered and referred to as an overall “social media” strategy with a view of the findings potentially having broader application in the research and literature on social media in health promotion regardless of the platform/application being used. Within this thesis, social media will be referred to as an overall strategy that is used within the MoveU physical activity campaign, and findings will be interpreted within that broader lens. However, since social media is so broad, and different platforms and applications have a variety of functions, it was important to hone in on the specific uses of Facebook and Twitter for some components of this thesis such as the literature review. A large section of this thesis will have an explicit focus on the MoveU Facebook page, since Facebook currently has such vast reach and popularity particularly among adolescents and young adults (Brenner & Smith, 2013; Facebook Newsroom, 2014), and because the MoveU Facebook page was gaining the most traction at the outset of this study in terms of followers.
In sum, social marketing is always about influencing behaviours, utilizing a systematic planning process that applies marketing principles and techniques, focusing on formative research with a particular target audience, and delivering a positive benefit for society. Social media and more specifically SNS, are now being used within social marketing campaigns such as MoveU.

2.6.3 The use of theory to guide social marketing

Despite research that has shown that campaigns informed by theory are more effective and have greater impact (Webb, Joseph, Yardley, & Michie, 2010), theory is rarely used to guide the development of social marketing campaigns (Lefebvre, 2000; Luca & Suggs, 2013). However, when they are used, the most common theories that have been adopted to guide the planning and evaluation of social marketing programs include the Transtheoretical Model, Social Cognitive Theory, the Health Belief Model and the Theory of Reasoned Action (Lefebvre, 2001). These traditional individual-level theories, like social marketing, hold that individuals take careful consideration in decisions (i.e., are rational thinkers), and move toward action in stages.

McGuire’s Communication-Persuasion Matrix, or input-output model (McGuire, 1989), is an information processing model which provides a useful framework for understanding the rational cognitive flow through these stages. The input variables include source, message, channel, and audience (McGuire, 1989). The output process postulates that audiences’ processing of the campaign proceeds through several sequential steps from exposure to the message and cognitive processing of the message, before effects are achieved at the levels of learning, and behaviour. The input factors provide options for health promoters to manipulate and are the main factors in achieving the output processes. McGuire’s hierarchy of effects model and other theoretical constructs

More recently, McGuire’s input-output model has been adapted to the PA promotion field. According to Cavill and Bauman (2004), who used an adapted version of McGuire’s HOE (1984) to guide their evaluation of the VERB campaign (which will be described below), the process of increasing PA through communication of a message in a social marketing campaign is a long process, and campaigns should not be expected to lead directly to behaviour change. Rather, campaigns should try to influence behaviour through a cascade of changes that moves from proximal or antecedent variables (i.e., awareness, understanding) to more intermediate and distal indicators such as self-efficacy, attitudes, outcome expectancies, and intentions (Cavill &
Bauman, 2004; McGuire, 1984). The guiding theoretical framework for the evaluation of the overall MoveU campaign is the HOE (see Figure 1). The HOE was also used as a framework to guide the evaluation of the social media campaign. This model fits particularly well for a social media strategy that uses SNS, since SNS like Facebook and Twitter are useful for reaching large audiences, which can increase campaign awareness (Bennett & Glasgow, 2009, Korda & Itani, 2011) and can also be used for promotion (Thackeray et al., 2008) and to deliver theoretical messaging that can help target the more intermediate variables in the sequence (which will be explained further in the literature review, in section 2.7.5). Importantly, constructs from Social Cognitive Theory (SCT) (Bandura, 1977) such as outcome expectancies and self-efficacy have previously been integrated into the HOE (Cavill & Bauman, 2004). Thus, this thesis explicitly applies the HOE’s theoretical lens, but within the HOE are constructs that have been taken from widely used and well studied behavior change theories like SCT.

2.6.4 Criticisms of social marketing theory

Although the focus of the social marketing process is on the consumer, or the target audience, one main critique of social marketing lies within its assumption of humans as rational thinkers.
Key insights about this can be borrowed from Lombardo and Léger's (2007) critique of the “Think Again” campaign, a social marketing HIV/AIDS prevention campaign. They postulate that the social marketing process may be based on the faulty assumption that people can make the decision to, in this case, be more active, and also negotiate the decision (i.e., they have the social, cognitive, and efficacy abilities to successfully negotiate barriers to PA and they possess the agency to do so) (Lombardo & Léger, 2007). McGuire himself critiqued that this type of model as simplistic as it does not consider the interaction of several variables at a time, such as culture and emotion (McGuire, 2001). This issue reflects one of the main critiques of social marketing and health behaviour change initiatives, whereby larger structural barriers to change are ignored (Lombardo & Léger, 2007; Wallack, 2002). Thus the MoveU campaign, just like other campaigns that adopt behaviour change theories, is limited by assumptions of humans making rational choices without the consideration of broader socio-cultural and/or cognitive influences on human behaviours. Despite these criticisms, social marketing has had some influence on certain behaviours and will continue to be a highly adopted, albeit pragmatic, framework. The following section will provide an overview of the use of social marketing to inform PA interventions.

2.6.5 Use of social marketing to inform PA campaigns and interventions

The use of social marketing principles to inform PA interventions is not a new practice as it has been around for approximately two decades (Stead et al., 2007). Several reviews have been conducted in order to determine the effectiveness of these interventions in terms of their positive impacts on behaviour. A review conducted by Gordon, McDermott, Stead, and Angus (2006) found 22 social marketing interventions that targeted PA by trying to increase knowledge of benefits of PA, dangers of inactivity, and trying to increase levels of PA. The interventions comprised community interventions, school-based interventions, mass media-based interventions, and interventions in other settings. Most of the studies were informed by one or more theoretical models, most often social cognitive theory which emphasizes the interactions between a person's cognitions and behaviour, through constructs such as self-efficacy and outcome expectancies (Bandura, 1997). The authors concluded that overall, social marketing interventions can increase knowledge of the benefits of PA, and dangers of inactivity (Gordon et al., 2006). Furthermore, there was evidence that social marketing interventions could be effective in all settings, whether it be in schools, workplaces, youth centers, the community, or
within the family. However, while mass media social marketing campaigns appear to successfully educate and increase public awareness of the benefits of PA, and even increase individuals’ intentions to become active, long term changes in PA have been minimal (Gordon et al., 2006).

One well known and successful social marketing campaign that was not included in the aforementioned review, perhaps because of the simultaneous timing of its evaluation, was the VERB campaign, which was developed by the Centers for Disease Control and Prevention (CDC) and launched in 2002. VERB was a national paid mass media campaign in the U.S. designed to change beliefs and norms about PA among children aged 9 to 13 years who were dubbed “tweens.” In order to penetrate the U.S. media market, VERB was allocated a 50 million dollar (U.S.) advertising budget for its first year (Bauman et al., 2008). The VERB campaign strived for high brand awareness and brand affinity among tweens so that tweens would develop a positive disposition to the PA through a positive relationship with the brand (Wong et al., 2004). One VERB evaluation assessed short term impact of proximal variables including campaign awareness, and beliefs about being active, and also assessed long-term impact on PA behaviour (Bauman, 2004). After one year, a large proportion of tweens were aware of the VERB campaign and could recall its main messages. Moreover, tween’s were engaging in more PA sessions, particularly among those who reported the most exposure to the campaign, indicating a dose-response relationship to campaign exposure (Huhman et al., 2005; 2007). Bauman and colleagues (2008) sought to test the HOE, described above, (Cavill & Bauman, 2004; McGuire, 1984) within the VERB campaign and found that the key proximal effects that led to PA behaviour change were increased awareness and understanding of the message. They also found that a linear sequence of cascading HOE variables did not occur. Rather, young people who understood the message were more likely to engage directly in more PA (Bauman et al., 2008). Although these findings need to be considered within the context of the target audience who were young and may not be influenced by the same cognitive presses as adults, they do highlight the role that mass media social marketing campaigns can have in influencing behaviours of target audiences. In later years, VERB moved beyond the well-funded mass media component and emphasized the settings and opportunities (i.e., local events and programs) that support behaviour change (Bauman et al., 2008). Evaluations from this extension of the mass media campaign could not be found. It would be interesting to gain insights on
which vehicles and channels were used to promote these opportunities, and if any success was seen in this portion of the campaign.

Key lessons learned from the implementation and evaluation of the campaigns like VERB play a role in informing future campaigns in terms of theoretical frameworks that can be followed as well as in how to design and develop appropriate messaging for a target audience. However, the VERB campaign, as with most PA social marketing campaigns reported in the literature, came before the proliferation of social media into everyday life. The amount of money that is spent on advertising and promotion in VERB and other campaigns, is considerably lofty, and the emergence of SNS has increased the potential to evolve several components of the social marketing mix. Because of this, the use of social media in health promotion should be valued for enhanced communication and improved capacity to promote (Neiger et al., 2012). Furthermore, through social media, health promoters can extend messaging and reach far beyond traditional levels (Hughes, 2010). Thus, social media presents a ubiquitous tool to lend itself to health promotion social marketing campaigns and interventions. The following section will provide an overview of the current uses of social media in health promotion campaigns and interventions.

2.7 Social media and SNS in health promotion

2.7.1 Overview: Who uses SNS

Young people are at the forefront of adopting SNS. Nationwide surveys conducted in 2013 across the U.S. found that while 72% of all internet users use SNS, 89% of internet using young adults (18-29) use SNS (Brenner & Smith, 2013). Furthermore, females and people living in urban settings are the most frequent SNS users (Duggan & Brenner, 2013). Facebook remains the most popular SNS with more than 1.32 billion monthly active users (MAUs) as of June 2014 (Facebook Newsroom, 2014). This compares to about 284 million MAUs on Twitter and 300 million MAUs on Instagram as of December 2014 (Kuchler, 2014). As highlighted previously, Facebook’s vast reach and popularity especially among adolescents was one of the main reasons why Facebook was chosen to be the focus of this thesis.

2.7.2 Background on Facebook

Facebook was created in 2004 and became a public website in 2006. Each user has their own “time line/wall” which contains all of their information and status updates, as well as a “news
feed” which is like a personalized overview of information from other users you have chosen to follow (i.e., friends you follow and pages you’ve “liked”). What makes Facebook so unique is it is offers multiple media options (i.e., photo sharing, editable pages, blogging, videos, polls, games, etc.), so there are multiple ways to fit the message that is being delivered instead of having to force the content into existing media that are not optimal for the campaign (Norman, 2012). Facebook has evolved into a mass communication platform which has the ability to improve current modes of news and information delivery (Baek, Holton, Harp, & Yaschur, 2011; ncchpp, 2015). Facebook has multiple features that make it ideal for interactive, communicative purposes with the aforementioned media options. All content is “actionable” in that it can be interacted with by the end user (i.e., whoever is seeing content from the MoveU Facebook page) in several ways, namely “liking”, commenting, “tagging”, sharing, responding to event invites (accept, maybe, decline), and responding to polls. There is a “like” button below each post as well as a comment box below each post. “Liking” content is analogous to showing interest and approval in the content. For example, by “liking” a comment or picture, an individual is providing some level of acknowledgement and therefore communicating without actually making a comment in response (“Facebook Help Centre,” 2014). “Tagging” links content (such as a photo) to someone else’s profile (whoever has been tagged). “Sharing” copies a post to one’s own time line, or someone else’s time line with whom they are sharing the content with. In this thesis, these interactions are broadly considered “engagement” when the end users do any of the abovementioned actions (i.e., “like” a post). However, there are currently issues and limitations in the literature on operationalizing different forms and levels of engagement which is further explained in section 2.7.6.2 (for example, are people more “engaged” with content in terms of agreeing with it if they share it, versus “like” it, versus click on it). Within this project, decisions had to be made in terms of defining and operationalizing different forms of engagement. As such, a discussion about the interpretations of different forms of engagement as well as the novel contributions of this thesis to these current issues follows in the discussion section.

Alongside these interactive components, there are several ways to have a presence on Facebook. One way is to have a traditional profile, which represents an individual and is updated by that individual. Facebook also enables the formation of groups and organizational pages. Facebook members can create and/or join groups on any topic. Facebook pages represent official
organizations or businesses and allow the public to choose to connect to it by “Liking” the page, at which point they are a “fan” of it and are therefore following it. Offline social interactions can be facilitated through Facebook by creating invitations to events, or online notifications for meetings, parties, and other gatherings (Pempek, Yermolayeva & Calvert, 2009). Facebook also allows for paid advertising. By utilizing Facebook advertising, administrators of a particular Facebook page can develop highly tailored and targeted ads that are based on personal profile information of users (such as their likes, interests, and comments, gender, age, relationship status, workplace, or college/university) (“Help Centre,” 2011). This is a notable strategy for the vast reach and diffusion of messages (Bouman, Drossaert, & Pieterse, 2012).

2.7.3 Rationale for the use of SNS for health promotion

This widespread public engagement with SNS on a daily basis, and the fact that SNS are widely accessible across geographical barriers, has led to research and interest in the use of SNS for improving health (Korda & Itani, 2011; Laranjo et al., 2014; ncchpp, 2015). For example, these platforms are increasingly being used is as a tool in public health communication (Schein, Wilson, & Keelan, 2010; ncchpp, 2015). A recent systematic review of the uses, benefits, and limitations of social media for health concluded that social media is a powerful tool for communication within and between the public, patients, and health professionals, that can potentially improve health outcomes (Moorhead et al., 2013). For these reasons, major public health organizations such as the National Institutes of Health, Public Health Agency of Canada and many regional health units such as Toronto Public Health have adopted social media into their practices and strategies, to relay health information nationally and internationally. Specifically for health promotion, the advantage of using established social networking platforms like Facebook and Twitter to deliver content is that the target audience is already present on the site, which eliminates the step of having to attract users to a site before trying to reach them with the health promotion content. Thus, the vast popularity of SNS like Facebook mitigates issues in health promotion interventions related to recruitment, reach, and retention (Bennett & Glasgow, 2009). SNS also offer potential for the delivery of health promotion content because they require individuals to actively contribute by engaging and generating content, which can be more influential than being the passive consumers of information. This has transformed mass electronic communications from “one way lectures” to multi way
conversations by placing the greatest emphasis on participatory co-production of knowledge (Norman, 2012).

Lessons learned from decades of research by Norman and Skinner on web-based programs for health promotion can be applied to this era of online health promotion via SNS. In their projects, Norman and Skinner highlight the importance of engaging students in health promotion strategies that go beyond traditional strategies in the classroom or the school clinic setting, to an approach that integrates media that students already use in a manner consistent with their interests (Skinner, Maley, & Norman, 2006). These researchers have found that these programs are more likely to be adopted when combined with other (i.e., offline) approaches (Norman, Maley, Skinner, & Li, 2008). It is now fully possible to integrate online and off-line behaviour change tools, in formats that can be adapted for different contexts. Taken together, this means that more than ever before, it seems necessary for health communication organizations to leverage SNS to reach demographics that are on these networks the most, and turn them into locations for health interventions in the behavioural domain.

2.7.4 Current research and evaluation on the use of SNS in health promotion interventions: Is it working?

Research and evaluation on the use of SNS in the health behaviour change context has received a lot of attention over the past few years. Since a number of studies have recently leveraged SNS to initiate behaviour change, there have been a handful of reviews and systematic reviews published to date, that have attempted to explore the effectiveness of this approach across a range of health behaviours such as tobacco and alcohol consumption, dietary intake, PA, and weight loss. In general, online social networking based interventions have taken one of two approaches: (1) some developed interventions that used popular existing online SNS, such as Facebook and Twitter, and (2) others have developed standalone, health-focused online social networks (Maher et al., 2014). Furthermore, there are two broad ways in which SNS are used in health promotion interventions: (1) as a standalone tool (i.e., the SNS is the only intervention delivery component), or (2) as an adjunct to other intervention components, such as mobile text messaging, podcasts, websites, etc.

Several recent studies have reviewed the evidence regarding the effectiveness of SNS in health behaviour interventions, either delivered as a standalone or as an adjunctive component of the
interventions. These rigorous studies include: a meta-analysis on the use of social media for diet and exercise behaviours (Williams, Hamm, Shulhan, Vandermeer, & Hartling, 2014), a systematic review of the use of social media in child and adolescent health (Hamm et al., 2014), and a systematic review of the effectiveness of online social networks in health behaviour interventions (Maher et al., 2014). Conclusions from these three studies were not positive in that authors generally concluded that studies of social media interventions relating to healthy diet and PA do not show significant differences between groups in key outcomes, and tend to show low levels of participation and adherence. More specifically, rigorous randomized designs have yet to demonstrate efficacy. Although RCTs are the gold standard in experimental research, they may not be practical for evaluations of social media platforms. Reasons for this, as well as a more thorough examination and critique of the published studies that have used Facebook and Twitter to deliver a PA campaign or intervention, are presented below.

2.7.5 PA behaviour change interventions that utilize SNS: Overview and typical evaluation

The studies included in the aforementioned reviews with a PA focus will be examined more closely because general systematic findings may not reflect nuances from individual studies. Included here are four published RCTs (one which was split into two published evaluations), and one descriptive study, all of which were conducted to evaluate the potential of Twitter and/or Facebook as an intervention delivery channel to promote PA or weight loss (via nutrition and PA promoting content) (Cavallo et al., 2012; Napolitano, Hayes, Bennett, Ives, & Foster, 2013; Turner-McGrievy & Tate, 2011; 2013; Valle, Tate, Mayer, Allicock, & Cai, 2013; Woolley & Peterson, 2012). In many of the studies, there was a trend toward targeting female participants, and/or attracting mainly female participants for intervention participation (Cavallo et al., 2012; Napolitano et al., 2013; Turner McGrievy & Tate, 2011, 2013; Valle et al., 2013; Woolley & Peterson, 2012). The age of participants ranged from youth aged 16, to adults aged 60, however, the majority of subjects were young adults and/or undergraduate students.

All five studies utilized Facebook and/or Twitter groups or pages to educate and disseminate information about PA and/or weight loss through nutrition and PA, however, intervention content was delivered in different ways across the studies. Only one of these studies, which was an 8 week weight loss RCT targeting 18-23 year olds, incorporated Facebook as an isolated intervention delivery platform as one of three intervention arms (Napolitano et al., 2013). In this
study, one of the arms was exposed to the Facebook intervention page only, one was exposed to a Facebook plus other tools condition, and there was a control group that was not exposed to the Facebook intervention page or the content in it (Napolitano et al., 2013). One of the main ways this study leveraged Facebook to deliver the intervention was through Facebook polls and they also created events on the Facebook page to invite people to things like on-campus farmers markets and cycling events.

The remaining interventions utilized Facebook platforms in conjunction with other tools, in order to drive health promotion/behaviour change. The Facebook components were adjuncts to other intervention components such as: a separate website and self-monitoring tool (Cavallo et al., 2012; Valle et al., 2013); having a support person and personalized feedback via text messaging (Napolitano et al., 2013); combining the use of Twitter and podcasts to deliver the intervention content (Turner-McGrievy & Tate, 2011; 2013); and as a supplement to an overall social marketing campaign that utilized a wide range of digital marketing platforms (Woolley & Peterson, 2012).

Cavallo et al. (2012) and Valle et al. (2013) exploited the interactive functions of Facebook, in order to facilitate participant engagement via open discussion and social support between end users (fans of the page/intervention participants). Interaction was facilitated through means such as having moderators encourage participants to answer discussion board questions, share goals, progress, setbacks, pictures and videos. These studies reported that engagement decreased over time, indicating the law of attrition, whereby the number of posts by the end users declined over time. Cavallo et al. (2012), and Turner-McGrievy and Tate (2011; 2013) also tried to facilitate social support through Facebook and Twitter (respectively). However, the low amount of posts, as well as the reports of no significant differences in perceived social support between groups, highlights the lack of effectiveness of social support as a mechanism to drive behaviour change in these studies.

All of the RCT’s were theoretically-guided, based off principles and constructs from SCT (Bandura, 1997) (Cavallo et al., 2012; Napolitano et al., 2013; Turner-McGrievy & Tate, 2011; 2013; Valle et al., 2013). It was common that the theoretical constructs were targeted via tools other than the Facebook/Twitter platform. For example, a Facebook page was used in combination with separate study websites that had tools that targeted SCT constructs by
allowing participants to set goals, and self-monitor (Cavallo et al., 2012; Valle et al., 2013). Two studies showed evidence that combining a Facebook page with SCT theoretically driven intervention targets (via the Facebook page and other tools) drives significantly more weight loss, compared to the control groups and compared to the Facebook only group (Napolitano et al., 2012; Valle et al., 2013). However, these findings must be interpreted with caution because other tools were used in the Facebook plus theory group, therefore the authors could not ascertain the extent to which each of the components accounted for the change.

In a campaign that most closely resembles the way the MoveU Facebook page is administered, Woolley and Peterson (2012) utilized a Facebook page called GUADS (Get Up and Do Something) as a supplemental means of administering a large social marketing health promotion campaign that aimed to increase regular PA and improve nutritional health of people from Delaware. In this campaign, Facebook was used to educate, inform, and motivate fans in order to promote healthy behavioural intent and adoption. GUADS utilized two weeks of Facebook advertisements that targeted 20-year-olds, in order to increase the base of fans (reach) of the Facebook page. An online questionnaire to a convenience sample of users of the page was administered to assess perceptions of, use of, impact of, and reaction to the GUADS Facebook page. This sample was predominantly white, young, and female. Results demonstrated that seeing, clicking, and reading GUADS posts was significantly related to increased health information seeking and increased health-related thoughts and behaviours (i.e., posts informed, motivated, and reminded fans to be healthy and active). Furthermore, the majority of fans of the page viewed it favourably. Based on these findings, the authors suggest that administrators should post more frequently than 4-5 times per week so that the page becomes more visible to its fans, and that attention-grabbing, interesting, likeable, and fun content (such as images, interactive questions, polls, and local events) are critical for health-related Facebook pages to be effective for a young population. Furthermore, the authors concluded that when fans do see posts, they are more likely to click on and read them, and engage in more health-related thoughts and behaviours and health information seeking. Thus, they suggest that health-related Facebook pages should track and monitor the rates in which their fans see posts because of its strong relationships with other health promotion outcomes (Woolley & Peterson, 2012).

In terms of primary and secondary outcomes of interest, results from most of the RCT’s were poor, indicating no between group differences in PA in the intervention group with the
Facebook component versus the education-only control among female undergraduate students (Cavallo et al., 2012); no additional weight loss with the addition of prompts and support provided via Twitter among overweight and obese 18-60 year olds (Turner-McGrievy & Tate, 2011); and no between group differences in MVPA between the intervention group that contained a Facebook plus other tools component versus the Facebook self-help comparison group among young adult cancer survivors (Valle et al., 2013). Furthermore, in an 8 week RCT targeting 18-23 year olds, only the Facebook plus text messaging plus personalized feedback group saw significant weight loss compared to the Facebook alone group or weight list control group (Napolitano et al., 2013). However, no significant differences in PA were found between all three groups. One evaluation did show a significant difference in weight loss between participants with higher versus lower Twitter engagement, among overweight and obese 18-60 year olds, however, it is unclear whether this weight loss was due to higher amounts of PA (Turner-McGrievy & Tate, 2013). In the intervention that used Facebook to promote PA to young adult cancer survivors, the frequency of Facebook posts by intervention participants (i.e., engagement) did not appear to be related to changes in PA in either group.

Quantitative and qualitative assessments of engagement, reach, and perceptions of the social networking intervention, all which will be defined in the next section, were the most commonly measured social network related indicators of success. Many of the studies’ results demonstrated clear attrition in the amount of engagement (i.e., responses and posts by users) over time (Cavallo et al., 2012; Turner-McGrievy & Tate, 2011; 2013; Valle et al., 2013). It is possible that many studies did not utilize metrics that capture all levels and types of engagement, which highlights the need for new and novel strategies to maximize the interactive capacities of these SNS, in order to drive higher levels of engagement, and also the need to measure all types and levels of engagement. However, there were mainly positive findings regarding perceptions of, and satisfaction with the Facebook components of these interventions, with many participants reporting favourable attitudes towards the Facebook platform, as well as indication that they would recommend the program to their friends (Cavallo et al., 2012; Napolitano et al., 2013; Valle et al., 2013).

It appeared that using Twitter and Facebook to facilitate social support amongst study participants in interventions was not feasible (Cavallo et al., 2012; Turner-McGrievy & Tate, 2011; 2013). This could be attributed to the tightly controlled study designs, which do not
mimic real conditions of social network use, whereby people are mainly in contact with their own social network. Furthermore, tightly controlled designs do not exploit viral properties of online social networks and their ability for mass dissemination of content (Maher et al., 2014). Other main critiques of these interventions include that often times, these studies are limited by small sample sizes, do not fully capitalize on participant engagement strategies available through SNS, and do not isolate the effects of social networking intervention components (Maher et al., 2014).

One of the future directions acknowledged in many of the aforementioned papers was the need to find better ways to maximize and maintain participant engagement. An interesting issue that was common across all of these studies, which was not acknowledged by the authors of the papers, was a general lack of understanding of how and why individuals use social media in general, and more specifically for health information purposes. A traditional mass media theory called uses and gratifications (U&G) (Katz, Blumler, & Gurevich, 1973) has been applied several times to help understand why people, specifically young adults, use SNS like MySpace, Facebook and Twitter (Chen, 2011; Raacke & Bonds-Raacke, 2008; Urista, Dong, & Day, 2009). The principle elements of U&G include people’s psychological and social needs and how media can gratify those needs and motives to communicate (Rubin, 2002). U&G can be applied to help understand users’ primary gratifications sought from SNS, such as the need to interact with people who are already part of one’s existing network of friends. Within a health promotion campaign, this information can be useful in improving site features that can enhance the audience experience and help fulfill campaign goals to, for example, maximize engagement.

2.7.6 Evaluation of SNS in health promotion: Overview

As the use of social media—more specifically social networking—in health promotion becomes increasingly practiced, it is vital that strategies and frameworks for evaluation are developed. However, there is no standard approach for evaluating social media based health promotion programs. Thus, one of the main limitations of the current research on the use of SNS in health promotion lies within evaluation.
2.7.6.1 Overview of outcome measures: Metrics and key performance indicators

Selecting and applying appropriate metrics is a challenge for evaluating health promotion interventions that use social media (Korda & Itani, 2011). A metric is any single variable that gets measured (e.g., number of posts, tweets, fans), and a key performance indicator (KPI), is the way an organization wants to assess the metric. For example, the number of posts by users may be quantified to measure the broad KPI “medium engagement” (Neiger et al., 2012). In order to develop appropriate outcome measures and corresponding evaluation metrics, four key strategic issues must be considered: a) goals and objectives; b) identification of specific audience of interest in order to tailor strategies towards them; c) identification of benefits the intervention can offer the audience (in line with goals and objectives); and d) identification of what the intervention wants the audience to do (e.g., create or promote content, respond to messages, share experiences, participate off-line) (Neiger et al., 2013). Many social networking applications have associated analytic tools at no charge. Facebook Insights (“Page Insights,” 2014) is free analytic software available to all Page users, and provides data on various metrics that measure engagement; reach (number of fans, fan demographics, number of times a post was seen by unique users); and impressions (number of times a post was displayed), all which will be described in further detail below.

2.7.6.2 Engagement: Low, medium, high, and unobservable

The KPI engagement has been a salient indicator of success in most studies leveraging SNS for health promotion, because SNS have the capacity to engage audience and create conversations which can result in important outcomes like feelings of social support, increased awareness of health information, and increased involvement with the health promotion program (Neiger et al., 2013). In the context of social media and health promotion, “engagement” has been defined as connections between people that contribute to a common good (Neiger et al., 2012; 2013). In two reports on the evaluation of social media sites for health promotion, as well as a results presented at a coalition on social media measurement standards, engagement can be seen as a hierarchy whereby there are three levels: low, medium, and high (Marklein & Paine, 2012; Neiger et al., 2012; 2013). Low engagement occurs when end-users are merely acknowledging a preference for/agreement for content (Neiger et al., 2012). Metrics to evaluate low engagement as it was defined by Neiger et al. in their 2012 article include the number of
“likes” of Facebook posts. Past researchers have typically measured “likes” of posts manually, by recording the number of “likes” per day in response to posts/content (Cavallo et al., 2012; Napolitano et al., 2013) and via website usage statistics from Facebook Insights (Nguyen et al., 2013; Pedrana et al., 2013). However, in a more recent article, Neiger and colleagues (2013) defined low engagement as marking the beginning of a social relationship between a health promotion organization/program and its audiences, which is characterized by one-way messaging from the organization to its followers that merely provides information without asking for a response. It therefore remains unclear where “likes” in response to posts fit in on the engagement hierarchy.

Medium engagement measures the presence of dialogic, participatory conversations (i.e., the number of people who participate in creating, sharing, and using content) (Neiger et al., 2012; 2013). Thus, if the health promotion intervention is trying to achieve its goals by exploiting the ability of Facebook or Twitter to create interactions, then this would be an important KPI to evaluate. Metrics to evaluate medium engagement include: number of posts by the users/audience, number of comments on a post, amount of user generated content (e.g., videos uploaded to the page by the users), and the number shares (i.e., number of times a post, video, or link was shared). Ways in which medium engagement has been measured are by manually recording the number of user’s comments (Cavallo et al., 2012; Napolitano et al., 2013), via website usage statistics (Facebook Insights) to quantify the number of wall posts, comments, shares, and number of active fans (Nguyen et al., 2013; Pedrana et al., 2013; Purdy, 2011), and via diaries and focus groups to provide more in-depth information surrounding the context of engagement and interaction with the Facebook page (Pedrana et al., 2013).

Lastly, high engagement can refer to the audiences’ offline involvement with programs as a partner, volunteer, or participant as a result of exposure to the social media application. For example, the number of people who attend events (offline) as participants (Neiger et al., 2012; 2013). High engagement is seen as the culminating indicator of all the levels of engagement within Neiger et al.’s (2013) hierarchy, and parallels outcome evaluation. To date, no intervention studies that have leveraged Facebook or Twitter as a platform have measured high engagement.
Metrics to measure engagement have yet to be properly operationalized and standardized, thus it is difficult to compare them between studies. As indicated above, the boundaries between low and medium engagement remain unclear, because metrics such as “liking” posts, commenting on posts, and sharing posts all represent a form of communication and acknowledgement of content. Furthermore, the extent to which people “like,” or comment on, or share posts may depend on the nature of the health topic and their comfort with who will see that they have engaged with the post. An example of when studies define engagement differently can be seen when Pedrana et al. (2013) quantified “total interactions” on their FaceSpace sexual health promotion Facebook site, and considered “likes” on posts to be in the same category of comments and shares which are considered medium engagement (Neiger et al., 2012; 2013). However, according to Neiger et al. (2012), “likes” are considered low engagement. The discordance of different metrics representing different key performance indicators is a problem in this field because it does not allow for comparability of effectiveness across studies.

Another form of engagement that was measured in several health promotion interventions that leveraged SNS, was unobservable, or passive engagement. Unobservable engagement occurs when people are still fully emerged in the intervention content, but it is not represented in any tangible way that can be measured objectively by a researcher. Participants who read posts but do not actively engage online are often termed “lurkers”, and they can benefit equally as much as active engagers from reading posts (Sullivan et al., 2011; Turner-McGrievy & Tate, 2013). As Napolitano et al. (2013) highlight, when data is limited to only measuring active engagement, it does not capture these other levels of engagement (e.g., number of times accessing the group, reading others’ posts, viewing content). In order to reconcile this issue and capture lurkers, in recent studies, unobservable engagement was measured mainly by having participants/end users record how many times they visited and/or read content on the Facebook or Twitter intervention page (Cavallo et al., 2012; Pedrana et al., 2013; Turner-McGrievy & Tate, 2011; 2013; Woolley & Peterson, 2012).

2.7.6.3 Reach

Reach refers to the number of people with contact with the SNS and its content. Reach can be operationalized in two ways. First, page level reach provides important information about the numbers of fans and followers, and the demographics of fans and followers (Neiger et al.,
Whereas, post level reach is a measure of the number of unique people who viewed a post. Post-level reach is often confused with “impressions” which represents the amount of times a post was displayed, and not necessarily how many times it was viewed by different individuals. In past studies, both forms of reach have been measured using Facebook Insights, to quantify the number of fans/followers of the page (i.e., number of page “Likes”), fan demographics (gender, age, town, country), and the number of views of posts (Nguyen et al., 2013; Pedrana et al., 2013; Purdy, 2011).

### 2.7.6.4 Satisfaction/acceptability

Another relevant KPI that is often measured in health promotion interventions is satisfaction with the social media component of the intervention, which is also termed acceptability. This has been evaluated using surveys or focus groups by assessing participant satisfaction with the program (SNS) in terms of how helpful it was to the health behaviour, satisfaction with the appearance of the page, and whether participants would recommend the intervention to peers (Cavallo et al., 2012; Jones, Baldwin, & Lewis, 2012; Napolitano et al., 2013; Pedrana et al., 2013; Turner-McGrievy & Tate, 2011; Valle et al., 2013; Woolley & Peterson, 2012).

### 2.7.7 Summary: PA behaviour change interventions that utilize SNS

Overall, there are many reasons why social media and SNS are attractive platforms for health promotion. However, the evidence regarding the effectiveness of SNS for PA behaviour change is not strong, and the usefulness of SNS for health promotion is still a matter of debate. It could be that health promoters who are integrating SNS are not capitalizing on its ability to reach a large, broad network of people, including a person’s existing network of friends. Furthermore, health promoters should better understand the target audience experience in terms of how and why they use SNS, in order to make better use of features that drive people to SNS. There is a need for the continued evaluation of the use of social media regarding its effectiveness as a method of communication and its impact on health behaviours. However, evaluation has presented various challenges, most notably, in operationalizing different metrics and comparing results across studies. The aim of this particular research project is to advance the current literature on the use of SNS in PA promotion. This literature review set the stage for the following chapter which will outline the main research questions as well as the methods that will be adopted in order to address those research questions.
Chapter 3 Methodology

3 Methodology

3.1 Rationale

SNS such as Facebook are currently being used in health promotion interventions. Thus, it has become increasingly important to empirically evaluate these interventions, in order to assess the utility of delivering health promotion interventions through these SNS. Although social networking is being used in health promotion interventions for various health issues, it may lend itself differently to different health promotion issues, and to different audiences. Young adults, in particular, gravitate towards advances in technology. Thus, it is imperative that the most current and popular technological platforms are used to reach and promote healthy behaviours to this population.

SNS have the potential to increase interactions with others, provide available, shared, and tailored information, provide peer/social/emotional support, deliver health messages to large audiences, and disseminate health messages quicker than traditional forms of social marketing (Moorhead et al., 2013; Pedrana et al., 2013). Despite this, few published studies have examined the role SNS play in promoting PA behaviour. Results from the studies that have evaluated the use of SNS for PA promotion have been poor in that typically there have been no differences in PA across treatment and control groups. This may be because the full potential of SNS as a tool to, for example, reach large audiences, was not harnessed in these intervention studies. The value of SNS in health promotion lies primarily within its ability for broad reach and communication, and PA intervention studies that utilize SNS are often limited by their controlled group sizes. Given that the strength of SNS lay in their potential for enormous audience reach, and in their many interactive features (Pedrana et al., 2013), SNS are likely to be more useful as a tool within social marketing health promotion campaigns. However, the current state of the literature regarding the uses of SNS in social marketing campaigns with a focus on PA is even more scarce. According to Woolley & Peterson (2012), Facebook may be an ideal mechanism for delivering a social marketing campaign because it allows groups/organizations to distribute health messages to target populations quickly and continuously. However, because of the paucity of literature in this context, little is known about key components of social networking platforms for PA promotion that drive engagement, that
increase reach, and that enhance general knowledge of the message of the campaign. Thus, little is currently known about how SNS fits into PA promotion, and how it can be exploited as an adjunctive component to deliver effective social marketing campaigns. This is the focus of my thesis.

An important element of social marketing campaigns is the identification of a target audience and the adaptation of appropriate strategies to that audience (Cavill & Bauman, 2004). To date, no studies in the PA promotion literature have conducted an in-depth examination of the thought process that went into building useful and engaging experiences via social media, for a target population. Another key gap in the literature surrounding evaluation of SNS in health promotion campaigns is the lack of theoretical frameworks for evaluation. The MoveU Campaign at the University of Toronto provides a unique opportunity to evaluate the social media component nested within a larger PA promotion social marketing campaign.

While attractive in theory, the evidence base illustrating the efficacy of SNS in real world settings is scarce, particularly because of the myriad of challenges faced in developing and evaluating them. The purpose of this study is to conduct an evaluation of the utility of the social media component of the MoveU campaign, delivered through Facebook, that aims to improve PA behaviours among first year females undergoing the university transition. I will do so through a comprehensive evaluation using mixed methods. I aim to provide new knowledge on how campaigns utilizing SNS can be designed to enhance PA promotion and will provide recommendations of appropriate frameworks for evaluating PA promotion campaigns delivered via SNS.

### 3.2 Objectives and overview

The objective of this study is to conduct an exploration of a PA promotion campaign based in a post-secondary education setting in order to evaluate the role of SNS to assist in PA promotion by examining campaign inception, implementation, and reception. The inception of the campaign is the process that occurs before the campaign and its messaging even exists, and helps to understand the thought processes involved in the creation of the campaign, as well as the purposes, goals, and objectives that informed it (Finlay & Faulkner, 2005). Implementation will assess campaign effectiveness in relation to the goals and values that informed it. Reception is concerned with how the intended audience engages with the social media, and interprets the
intervention messaging. As with broader social marketing evaluations, it is important to understand how the target audience receives and interprets the MoveU content delivered using social media, rather than to just assess their recall of any messaging (Finlay & Faulkner, 2005).

3.3 Research questions

In order to assess the utility of social media within this specific context, two main research questions were addressed:

RQ 1. What is the role of social media in health promotion campaigns, and specifically PA promotion social marketing campaigns?

a. What are the roles of SNS in PA promotion from the perspective of those who are creating and implementing the campaign (i.e., health promoters), and the target audience (i.e., students)?

b. How acceptable are SNS within a PA campaign for a first year female students?

c. What unique characteristics of SNS can be harnessed in order to advance PA promotion?

RQ 2. How effective was the social media component of the MoveU Campaign in terms of the objectives outlined by the individuals involved in the creation and implementation of the campaign?

a. Which features, content, and approaches are driving reach and engagement?

b. Do posts reflect theoretical indicators related to behaviour change (intermediate variables within McGuire’s Hierarchy of Effects Model), and how are those engaged with?

c. To what extent did Facebook reach and engage first year females and improve their knowledge towards the messaging of the campaign?

The overall goal of my thesis, which will be informed by these research questions, is to make recommendations for the optimal use and evaluation of social networking tools both within the MoveU campaign and beyond the campaign, to other PA promotion campaigns and/or interventions utilizing SNS. These recommendations will also help to strengthen the MoveU
campaign specifically by feeding back into the project implementation and evaluation for the upcoming years, in order to improve campaign delivery.

### 3.4 Methodological overview

The research questions were addressed by a multi method approach comprised of three evaluation phases, as illustrated in Figure 2 below, each with their own separate methodologies.

![Figure 2. Three phase mixed methods evaluation of the social media component of the MoveU campaign.](image)

#### 3.4.1 Rationale for a mixed methods approach

Mixed methods research refers to the collection and analysis of both quantitative and qualitative data in the context of one single study (Driscoll, Appiah-Yeboah, Salib, & Rupert, 2007). A combination of evaluation methods from interviews, Facebook usage analytics, and focus groups were applied to create a novel evaluation framework for the purposes of this study. Specifically, sequential triangulation/mixed methods data collection was applied, which involved collecting data in an iterative process whereby the data collected in one phase contributed to the planning of, and data collected in the next phase (Driscoll et al., 2007). This design was used to capture a more comprehensive and contextual portrayal of the utility of social media platforms within PA behaviour change campaigns, with a view of uncovering
findings that may not have otherwise been uncovered by using a single methodology (Jick, 1979). These methods were meant to expand the scope of research to offset the weaknesses of each approach alone.

As displayed in Figure 2, first, a qualitative assessment of the inception of the social media component of the MoveU campaign was conducted through one-on-one interviews with MoveU organizational partners, as a part of a broader evaluation of the MoveU campaign. These interviews served to assess the partners’ perceptions of how social media fits into health promotion, and to explore their understanding of the objectives of using social media within the MoveU campaign. This evaluation informed the next phase of the study, which was the creation of the MoveU Facebook page evaluation framework, according to the social media goals and objectives identified by the partners and based on previous work highlighted in the literature review. In this phase, posts delivered by MoveU on Facebook during the entire second academic year of the MoveU campaign were captured, in order to conduct a post-hoc program evaluation by means of content analysis combined with web analytic data. Indicators sensitive and specific to measurement of reach and engagement were collected. Then, six focus groups were conducted of students who were “exposed” to the MoveU campaign and “not exposed” to the MoveU campaign, again, as a part of a broader evaluation of the MoveU campaign. The goal of these focus groups was to determine students’ perceptions of the use of social media in health and PA promotion, and their “reception” of the social media component of the MoveU campaign. Questions also tried to prompt responses about their experiences with the social media component of the MoveU campaign. The information regarding students’ perceptions of the use of social media in health promotion was also analyzed to examine how closely it supports the Facebook analytic data and content analysis. The research methodologies will be described in greater detail below.

It is important to note that both the partner interviews and the student focus groups were part of a broader study evaluating the MoveU campaign (i.e., social media related questions were just one section of the overall interviews/focus groups). Thus, a lot of the questions were answered within the context of the MoveU campaign as a whole and some of the comments about social media were made while answering broader MoveU evaluation questions.
3.4.2 Ethical considerations

Ethics Approval for all phases of this project was obtained from the University of Toronto Office of Research Ethics (Protocol reference # 28772). Participants in the Phase 1 interviews and Phase 3 focus groups were informed that there are no right or wrong answers, and that all perspectives are welcomed. In addition, they were told that all information gathered would be kept confidential, but if they do not feel comfortable answering questions, they do not need to respond and/or they can choose to leave the interview/focus group at any time.

3.5 Methodologies for the three phases

3.5.1 Phase one: Partner interviews

In the first phase of evaluation, from May 2013-July 2013, one-on-one, in-person, semi-structured interviews of nine key partners/stakeholders involved in the MoveU campaign were conducted. According to Neiger et al. (2013), in order to develop appropriate outcome measures and corresponding evaluation metrics, key issues that must be considered include: goals and objectives, identification of a specific audience of interest, and identification of what the intervention wants the audience to do (i.e., respond to messages, participate off-line). These interviews served to gain an understanding of how the individuals who are implementing the campaign—the “health promoters”—understand the uses of social media in health promotion, and what they think the goals and objectives of the use of social media within the MoveU campaign were, that can be used as a basis for evaluation. Importantly, questions were asked using the broader term “social media” instead of “SNS” or “Facebook” for two main reasons: first, ever since the MoveU campaign was being developed, the partners referred to it as the social media strategy. Second, as mentioned previously, it was the researchers’ hopes that findings from this thesis would not be limited to a narrow application within Facebook related research only. As such, many questions are relevant to broader research about social media for health promotion in general. Accordingly, key issues that were addressed in these interviews included (see Appendix E for the full MoveU partner interview guide):

1. General understanding of the uses of social media in health promotion (e.g., “How do you think social media fits into health promotion?”; “What are some advantages of using social media in health promotion interventions?”; “How does social media compare to a website?”)
3.5.1.1 Recruitment of participants

In order to recruit MoveU partners, the MoveU program director was asked to provide a list with contact information (name, email, telephone number, location) of all of the key partners involved in the MoveU campaign. At the time, there were eleven key partners: seven from the St. George campus (two of whom had a similar role); two from UTM (who shared a role); one from UTSC and one from ParticipACTION. Nine of those eleven were recruited to be representative of each of the MoveU partnerships. The nine potential interviewees were sent an e-mail describing the study and the opportunity for them to volunteer as an interviewee with the consent information attached (See Appendix C). Interviewees were asked to contact the study coordinator (myself) if they were interested in participating, who then scheduled the interviews. All nine key informants/MoveU partners who were e-mailed were interested in participating. The partners were interviewed between May 2013 and July, 2013. These in-person, semi-structured interviews lasted between 35 minutes and 68 minutes.

3.5.1.2 Data collection methods

One-on-one interviews provided opportunities for individuals to reflect on their thoughts and experiences, and can be used to highlight similarities and differences in individuals’ opinion about core components and uses of social media for health promotion. Interviews were conducted in a meeting room at the University of Toronto St. George campus, in the Faculty of
Kinesiology and Physical Education. At the outset of the interview, interviewees provided verbal consent. No incentives for participation were provided. Digital voice recordings were transcribed verbatim, with the exception of names, which were changed to pseudonyms. Furthermore, references to the partners’ specific area of work and role in the MoveU campaign were changed, in order to allow for as much anonymity as possible. Transcripts were imported into NVivo-10 qualitative software for coding and analyses.

3.5.1.3 Theoretical position

Transcripts were analyzed based on a deductive iterative thematic analysis process, which is a method for identifying, analyzing, and reporting themes within data, in order to organize and describe data in detail (Braun & Clarke, 2006, p.6). Essentialist/realist thematic analysis was undertaken, whereby experiences and realities of participants were reported, without examining the broader social context and how it impinges on what was said (Braun & Clark, 2006, p. 9).

3.5.1.4 Data analysis

Themes represent a level of patterned response within the entire data set that are in relation to the research questions (Braun & Clarke, 2006). Certain assumptions guided the categorization of themes, such as my knowledge of previous research in this field, and my prior knowledge of MoveU as an active member of the evaluation team who attends MoveU partner meetings. I assumed that all of the MoveU partners attended similar meetings, and thereby were informed with the same knowledge; that all of the MoveU partners are working for the same common good and care about students’ health; and that everybody was familiar with social media and that their responses reflected their prior knowledge and use of social media.

The process of searching for themes and patterns across the entire data set began during the interviews themselves. During the entire process that ensued, I played an active role in identifying themes and patterns, selecting which were of interest, and reporting them. During the process of transcribing I became very familiar with the data and jotted down notes of things that stood out that could potentially become themes. Thus, my judgment, based on being fully immersed in the data and based on knowledge of previous research in this field, shaped the development of themes.
The transcripts were re-read several times, and similarities and differences in what the partners said concerning main research questions were of particular interest. Themes within the dataset were identified in a deductive or “top down” way, because the data was being analyzed according to its appropriateness to the research questions (i.e., The parts of the interviews when partners were talking about the uses of social media in health promotion and the goals of the social media component of the MoveU campaign were of greatest interest). In order to determine the salience of a theme, prevalence was considered, which was counted according to if a theme appeared anywhere in each individual interview; not if a theme appeared multiple times within one interview. However, the importance of a theme was also dependent on its appropriateness to the research question—themes were intended to capture how social media can be useful within health promotion and not everyone will provide answers that clearly capture a preexisting theme, therefore a key theme may not exist in most or all interviews.

3.5.2 Phase two: Tracking of MoveU Facebook page through Facebook analytics and content analysis

In this phase of the study, a quantitative content analysis of posts delivered by MoveU on the Facebook page was undertaken over an 8 month period. The objective of this phase was to address the second research question concerning the effectiveness of the social media component of the MoveU campaign according to key goals and purposes it was set out for. As previously highlighted in the literature review, past behaviour change interventions that have utilized SNS either as standalone intervention tools or as adjunctive tools to broader interventions, have primarily focused on measuring reach, level of engagement and interaction, and participant perceptions/satisfaction. In accordance with the goals and purposes of the social media strategy highlighted by the partners in Phase one, as well as common indicators of success in the broader literature (Neiger et al., 2012; 2013), key outcomes of interest included:

1. Increase awareness of the MoveU campaign;

2. Maximize reach in terms of increasing the number of fans of the Facebook page (page-level);

3. Reach the target audience (page-level);

4. Maximize engagement/interaction with content that is delivered by MoveU (post-level);
5. Deliver the main MoveU messaging (i.e., about the benefits of being physically active in terms of academic success and PA being “you at your most productive”) (post-level);

6. Share information about events and opportunities where students can be active on campus (post-level).

3.5.2.1 Analytic data

Website usage statistics from Facebook Insights were used to objectively measure reach and engagement. Facebook Insights provided objective data about the basic characteristics of fans including fan demographics (gender, age group, city fans were from) and usage data (post level interactions [clicks, “likes”, comments, shares, event responses] per post). Usage statistics were monitored throughout the project, but were downloaded at the end of the evaluation period, with final analyses conducted in June 2014. Metrics that were used to capture page level “reach” included amount of Facebook fans and demographic characteristics of Facebook fans expressed as a percentage of the target population reached. Post level “reach” (how many Facebook users saw the post) was captured from Facebook Insights. On Facebook Insights, the indicators used to capture interaction at the post level include “engagement” and “talking about this” (see Table 1 for definitions of metrics and key performance indicators [KPI’s]). On Facebook, indicators of engagement included the number of different people (who are not necessarily fans of the page): clicking on posts, “liking” posts, commenting on posts, sharing posts, and responding to event invites. Indicators of talking about this included all of the aforementioned metrics except for clicks. Talking about this will be considered a more active level of engagement than engagement since clicks do not necessarily demonstrate any agreement or approval of the content, whereas likes, comments, and shares of posts do indicate a level of approval.

Furthermore, absolute values of engagement and talking about this do not provide a robust indication of which posts are most successful at engaging students because they can be confounded by how many students the post reached. Rather, it is more effective to look at them as relative values/ratios. More meaningful information regarding the types of posts and content that drive engagement can be obtained by looking at KPI’s like engagement divided by reach (“engagement/reach”), and talking about this divided by reach (“talking about this/reach”) (see Table 1 for definitions) which effectively control for reach. This is important when examining
content that is driving engagement, because ratios control for things like time of day the post was posted, date, amount of fans, etc.

3.5.2.2 Research setting and participants

This phase of research was conducted on the MoveU Facebook page. Participants included anybody who “Liked” the MoveU Facebook page, as well as all of those other unique visitors that Facebook Insights captures in its metrics for reach and engagement. Because of the public nature of these SNS, users were not aware that this page was monitored on a daily basis.

3.5.2.3 Data collection methods and analysis

Based on the second research question, this phase of the evaluation explored which types of messages delivered by MoveU obtained the highest amount of engagement. In order to do so, this project employed a quantitative content analysis of the messages posted by MoveU onto the MoveU Facebook page. A coding scheme was developed with the primary aim of extracting theoretically linked material from the HOE (See Figure 1) (Cavill & Bauman, 2004; McGuire, 1984) relating to the content of MoveU’s posts. The process of creating a coding scheme was a combination of a deductive approach, in terms of searching for specific theoretical constructs, and also an inductive approach in terms of retaining the flexibility to be open to new categories/themes that may emerge. For this project, an initial draft set of themes was developed over a two-week period of familiarization with the different kinds of posts delivered by MoveU.

The following definitions of the psychosocial constructs related to PA that have been integrated within the HOE, were adapted from social cognitive theory (SCT) (Bandura, 1977; 1986; 1997), and the Theory of Reasoned Action (TRA) Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) in order to assess if they were reflected in posts:

(1) Outcome expectancies (“O.E.”): posts relay information about the specific benefits/outcomes of participating in PA (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975; Bandura, 1997).

(2) Self-efficacy (“S.E.”): posts relay information about overcoming barriers to engaging in PA such as weather related barriers, time, and money (“Barrier S.E.”) and/or the post tries to change people’s confidence in their ability to do PA through one of the influencers of S.E. (i.e., mastery
experiences, vicarious experiences, verbal persuasion, or physiological and psychological states) (Bandura, 1977; 1986; 1997).

**Table 1.**

**Evaluation Framework, Key Performance Indicators (KPI’s), Definitions, and Associated Metrics from Facebook Insights**

<table>
<thead>
<tr>
<th>Social media objective</th>
<th>Key performance indicator (KPI)</th>
<th>Metrics that capture the KPI</th>
<th>Indicators of success</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Increase # of Facebook fans</td>
<td>Page Reach&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Page Likes</td>
<td>Growth in fans over time</td>
</tr>
<tr>
<td></td>
<td># of unique people who follow the Facebook page and its content</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Reach target population</td>
<td>Page Reach&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Demographics of people who Like the page</td>
<td>Proportion of fans that are young and female (i.e., MoveU target audience)</td>
</tr>
<tr>
<td>Reach of post</td>
<td>Post Reach&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Reach of individual posts</td>
<td></td>
</tr>
<tr>
<td></td>
<td># of unique people who see the post</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Maximize interaction</td>
<td>Engagement (Post Level)&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Combined: clicks+likes+comments+shares+event responses</td>
<td>Mean engagement for all posts captured</td>
</tr>
<tr>
<td></td>
<td><strong>Engagement Reach</strong> (Post level)&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Combined: clicks+likes+comments+shares+event responses divided by the post reach</td>
<td>Mean, as above</td>
</tr>
<tr>
<td></td>
<td>Talking about this (Post level)&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Combined: likes+comments+shares+event responses</td>
<td>Mean, as above</td>
</tr>
<tr>
<td></td>
<td><strong>Talking about this Reach</strong> (Post level)&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Combined: likes+comments+shares+event responses divided by the post reach</td>
<td>Mean, as above</td>
</tr>
</tbody>
</table>

*Note.* The numbers next to the social media objectives correspond to the number indicated in section 3.5.2 (p.39-40) when referring to key outcomes of interest identified in the partner interviews and in previous literature. *a*Refers to fans only (i.e., only users who have “Liked” the MoveU page). *b*The KPI captures any Facebook user (fans and non fans of the page), since the page and its content are open to any Facebook user. Someone who has not “Liked” the MoveU Facebook page can still “like”, comment on, or share, a post by MoveU.
After the draft coding scheme was created, the remaining Facebook posts were collected on a daily basis over the entire 2013-2014 school year. All posts were categorized into their relevant code by one coder, which was myself. If any single post had text along with photos, links, and videos, the content within those other mediums was also coded. Each post could be coded into multiple categories (for example, one post could be humorous as well as reflect outcome expectancies and self-efficacy). Along the way, new categories did emerge, and the coding scheme was flexible to change. A second rater coded 10% of the posts for reliability. Data was compiled onto an Excel spreadsheet to directly compare categorization of posts across coders.

Next, post-level raw data was downloaded from Facebook Insights, a free web analytic tool. This data comprised all of the posts on the MoveU Facebook during the entire 2013-2014 school term. This content analysis was merged with the following post level analytic data from Facebook Insights: reach, engagement, and talking about this. Engagement/reach and talking about this/reach were then calculated. All of the posts as well as their respective content analysis theme, and indicators of reach and interaction (engagement, engagement/reach, talking about this, talking about this/reach) of each post were imported into SPSS in order to assess how much users engaged with different content/themes. Descriptive statistics were obtained in order to assess means for each theme/category for: reach, engagement, talking about this, engagement/reach, and talking about this/reach.

The content analysis also assessed the proportion of posts that were in line with the overall goals and purposes of the social media component of the MoveU campaign, in order to provide an assessment of how the campaign unfolded compared to how it was set out to unfold. Overall, the information gained from the content analysis will provide insights on what kind of information is primarily being transmitted by MoveU, as well as insights about if students are actually interacting with different types of content, including theoretical content.

3.5.3 Phase three: Focus groups with students

Focus groups took place in February and March 2014. Key informants that were recruited for focus groups included students “exposed” to the MoveU campaign (students who had attended at least one MoveU event), and students “not exposed” to the MoveU campaign (students who had not attended any MoveU events). Notably, the choice to recruit students exposed and not exposed to MoveU was primarily for the purpose of the broader MoveU evaluation, and not a
methodological choice made specifically for this thesis and its social media focus. Therefore, data were not analyzed in terms of comparing these two groups. The primary purpose of these focus groups was to determine how social media for health and PA promotion is perceived by the target audience and to explore the reception of the social media component of the MoveU campaign. Focus groups were deemed appropriate for the purposes of this study for two primary reasons. First, focus groups might be useful when exploring topics of which little is known, in this case, about the uptake of social media for PA promotion, and particularly by this target audience. Focus groups provide an opportunity to understand how people think or feel about an issue, which is aligned with the purpose of the first research question (Krueger & Casey, 2002). Generally, the focus group environment is seen as being helpful for participants to discuss ideas, perceptions and thoughts (Krueger & Casey, 2000). Since this field of study is relatively novel, students may have been more inclined to talk about it in an informal discussion. Second, focus groups are useful for evaluating how well programs are working and how they can be improved (Krueger & Casey, 2002). Furthermore, the focus group data should be able to provide a deeper understanding of the findings that emerge from the eight month Facebook page tracking, and may provide key insights into relationships and patterns. The accepted rule of thumb is to plan three to four focus groups per category of individual (Krueger, 2009). Accordingly, three “exposed to MoveU” and three “not exposed to MoveU” focus groups were planned, mainly for the purposes of broader MoveU evaluation. Accordingly, key issues that were addressed included:

1. Characteristics of end users: demographics, and PA behaviours (i.e., “How does physical activity fit into your university experience?”; “Has your physical activity changed in any way since you were in high school?”)

2. Perceptions of utility of social media as a health promotion tool (i.e., “How do you think social media fits into health promotion?”; “Do you think social media is a useful health promotion tool for your age group, like sharing physical activity tips and advice?”)

3. How they interacted with the MoveU social media pages.

4. Acceptability, satisfaction, and opinions about the MoveU social media pages (i.e., “What do you think about the number and nature of posts and notifications?”)
5. Message recall from MoveU social media platforms/impact of the social media on health knowledge, attitudes, and behaviours (i.e., “What kinds of messages do you recall hearing, from the social media pages?”; “How did the messages make you feel? Did they influence your attitudes towards PA? Intentions? Behaviour?”)

6. Recommendations for the future (i.e., “What else would you like to see in MoveU posts and notifications?”; “What could be done to improve MoveU social media for next year?”)

3.5.3.1 Recruitment of participants

Multiple channels and methods were used in order to recruit “exposed” to MoveU students. During MoveU events, participants were asked to provide their name, email address and year of study for the purposes of tracking who has taken part in MoveU activities, and for the purposes of providing feedback about the events. The MoveU partners from each campus were contacted and asked to provide MoveU event attendance lists, which included the students’ e-mail addresses. All of those students who had attended MoveU events were contacted via e-mail. The e-mails requested first and second year female participants only. Other recruitment channels included posters in recreational centers and residences, posts on the MoveU Facebook and Twitter accounts, word of mouth, and e-mails through campus athletics and recreation staff from all three campuses who were involved in MoveU. According to previous research, focus groups work most effectively when they have between 5 and 10 members (Krueger & Casey, 2000). This size allows opportunity for everyone to share thoughts and insights, and allows for a diversity of perspectives (Krueger, 1994). I attempted to recruit six to eight students per focus groups based on the following criteria: 1) female; 2) first or second-year undergraduate student; and 3) attended a MoveU event. Participants were selected based on who responded first. Following the advice of Morgan (1988; 1997) participants were over-recruited by about 20 percent, in order to account for “no shows.”

Students not exposed to the MoveU crew and events were recruited via multiple channels including posters in recreational centers, and also through word of mouth and e-mails through campus athletics and recreation staff who were involved in MoveU at all three campuses. Again, I attempted to recruit six to eight students per focus groups based on the following criteria: 1) female; 2) first or second-year undergraduate student; and 3) has not attended a MoveU event.
3.5.3.2 Data collection methods

Six focus groups were conducted in February and March 2014 with a moderator (myself) and an assistant moderator who assisted in set up and note-taking. The two focus groups on the St. George campus took place on different days, the exposed in a quiet room in the Athletic Centre and the not exposed group in a meeting room in Hart House. Booking the focus group rooms at the Scarborough and Mississauga campuses was done through a coordinated effort with MoveU program staff from those respective campuses. There were three “exposed” focus groups, one conducted at each campus and three “not exposed” focus groups, also with one conducted at each campus. At the outset of the focus groups, interviewees provided written consent. Light snacks and refreshments were provided during the focus group sessions. Focus group participants were compensated with a $20 Starbucks gift certificate for their time and for participating in the study. While facilitating the focus groups, the conversation was purposefully guided toward the intended scheduled topics by the moderator. Based on recommendations from Krueger (1994), the moderator was responsible for facilitating the discussion, prompting participants to speak, and trying to engage less talkative members to participate, in order to ensure that the focus group captured opinions from all students involved. The assistant moderator took notes in order to distinguish who was saying what, to assist transcribing. The moderator’s judgment was used to determine when a question was answered adequately and everyone had an opportunity to contribute. It was evident that in the focus groups with fewer students, all students felt compelled to respond to almost every question. This style of focus group facilitation will inevitably affect the way themes were determined and the salience of themes, as will be discussed below.

Following the focus group sessions, digital voice recordings were transcribed verbatim, with the exception of names, which were changed to pseudonyms. Transcripts were imported into NVivo-10 qualitative software for coding and analyses. These semi-structured focus groups lasted between 38 minutes and 72 minutes (average: 58 minutes).

3.5.3.3 Data analysis

Several assumptions guided the determination of themes. First, it was assumed that everybody understands the relevance and significance of being active, and that all of the students make
rational decisions about their health. It was also assumed that everybody was familiar with, and had used social media.

Transcripts were analyzed based on the same iterative thematic analysis process as explained in the data analysis sub-section for Phase one on pages 38-39 in section 3.5.1.4. Once again, the researcher was fully immersed in the data from the initial stage of conducting the interviews, all the way through to transcribing and analyzing the data. After transcribing, the transcripts were re-read several times.

Once again, themes within the dataset were identified in a deductive or “top down” way, meaning they were driven by an interest in specific research questions. When analyzing focus group data and determining themes, there were two main foci, in order to address the two research questions. The first focus was to gain an understanding of students’ perceptions of the usefulness of social media for health and PA promotion, in order to relate back to the first research question. Of particular interest during analysis was similarities and differences in students perceptions compared to partners’ perceptions in Phase one. The second focus was on student experiences with the social media component of the MoveU campaign, and their recommendations for the future, in order to address the second research question.

In order to determine the salience of a theme, prevalence across focus groups was considered, but not necessarily within focus groups, since not all students in each focus group were prompted to answer each question. When analyzing data, answers to the primary research questions and variables of interest were sought out in each individual transcript. Taken together, the salience of a theme was determined by multiple factors: a) how appropriate it was to the research question; b) how prevalent it was across all focus groups; and c) if it was similar or dissimilar to the partners’ responses about similar questions. It was also deemed valuable to parse out individual perceptions and experiences as well as those that seemed to embody the entire group.

3.5.4 Self-reflexivity

As a qualitative researcher, I recognize that my own biography and thus personal biases intersects with my generation and interpretation of all stages of the research process from the formulation of the research questions to the analysis and writing. In the following section, I will
acknowledge how the person I am as well as my value systems, education, and current position, played a role in the construction of the knowledge in this thesis. I will also touch upon how I negotiated my power relations in the interviews and focus groups that I conducted.

To begin, PA promotion is important to me for several reasons. As a graduate student in the Faculty of Kinesiology and Physical Education with an undergraduate major in Kinesiology and minor in Psychology, my value systems towards PA and exercise have been shaped for the past eight years. On a more personal level, I am a female who has been involved in sports, primarily soccer, for my entire life. This means that besides all of the theoretical and scientific knowledge I have accumulated over the years, I know how beneficial PA can be both for physical and psychological well-being from personal experience.

Given my educational background, I would consider myself a behavioural scientist. Thus, my theoretical values are based in PA-behaviour change concepts and theories. The main way in which this informed this thesis was through my own general understanding of PA as a behaviour that can be changed as long as certain elements of one’s life—which can vary among people—are modified or changed. This coincides well with the entire mandate of MoveU campaign, which attempts to increase PA behaviours particularly by drawing students’ attention to the positive benefits PA can have on various facets of the university experience. The influence of theoretical underpinnings of PA behaviour change and my interpretation of how these can be applied to social media as well as how social media can be applied to behaviour change theory, will be evident throughout. Therefore, the practices that were used to create this knowledge were based on traditional health promotion models, and I acknowledge that they may be limited by the same limitations that apply to the assumptions and gaps in those models.

Most of the knowledge that I have accumulated within the health promotion context has had a strict, narrow focus on PA promotion, and it has always been taught through a positive lens. Throughout the two years in which I have been undertaking my master’s degree and working on this project, I have gained new insights that have broadened my knowledge base which has allowed me to interpret this project from various angles. For example, I took a health promotion strategies and a health communication course, in which I was exposed to research about health communication campaigns beyond the PA domain. These courses and their content helped me understand the broader social determinants of health that can impact people’s opportunities and
choices when it comes to health decisions. This has helped put into perspective that the campaign being evaluated is taking place in an highly renowned undergraduate institution with educated students who are health literate enough to both understand the usefulness of a healthy active lifestyle, and be able to apply the knowledge to their own lives. Some critical issues such as this are reflected upon in the discussion. However, I do not think that these issues discredit the value of this research to its broader application into the health and PA promotion field.

Another important consideration when self-analyzing how my biography and position as a researcher intersects with this research project is my vested interest in the MoveU campaign. In some ways, I was an “insider” in the campaign, whereby I am a student who entered this social media component of the MoveU evaluation with a lot of prior knowledge about, and involvement in, the MoveU campaign. I was actively involved in the MoveU campaign as a part of the broader evaluation team and as such, was observing the process of MoveU unfolding by keeping informed about key components of the campaign, key learnings, struggles, and future plans. I would also present some preliminary process evaluation findings to the key partners/stakeholders at meetings which may have had a subsequent impact on the campaign. I am aware that I want the campaign to be successful, so I exercised caution in interpreting my results.

3.5.4.1 Influencing research informants

I would also like to reflect on my own process of negotiating power relations as a graduate student and researcher. The partners, whom I personally contacted and interviewed, all knew me from my attendance at a handful of MoveU meetings, which put me in a peculiar position. Although I clarified that their names would remain anonymous in the analyses and write-ups, there may be the possibility that they were less critical of an initiative we were all contributing to. It was also intimidating interviewing people who I looked up to and respected as professionals within the PA promotion field. However, in reflecting on things such as my body language and approach to speaking to the partners before the interview began, I do not think that my position as the interviewer and as a young new graduate student, influenced the participants in their questions related to social media. In addition, partners may have taken into consideration the intended audience for my evaluation (i.e., everybody involved in the MoveU campaign), which may have strongly influenced their depth of disclosure.
When I conducted focus groups with the students, the power relations were ostensibly flipped from that of the interviews with the partners, whereby my position as a graduate student and researcher may have affected the way students perceived me. The students may have thought I was part of the MoveU team, and in my e-mails, my signature indicates that I am in the Faculty of Kinesiology and Physical Education. These two factors may have created a research bias and influenced students’ responses in focus groups. In order to reconcile this, I was always very polite and cheerful, in order to try to position myself as “one of them.” I recall using humour perhaps in an effort to reduce power differentials. I also occasionally contributed to opinions being expressed in focus groups by nodding my head, smiling, and sometimes laughing with the group. It is possible that these occasional contributions gave the impression of myself as a participant, thus making my position as a researcher and “polite interrogator” less salient (Finlay, 2002).

Overall, through the aforementioned reflections about my own educational and personal background, values and assumptions, it is clear that I had a large influence in co-constructing the data throughout the entire research process. This is inevitable in qualitative research, and presents an important challenge in navigating how the results would have looked if it was someone different who produced this research from beginning to end. I believe that my background and experiences put me in a unique position to conduct this research and produce knowledge that is relevant to the field of exercise psychology/PA behaviour change.
Chapter 4 Results

4 Results

4.1 Overview of presentation of results

The results section will be presented as follows: first, in chapter 4.2, key findings from the interviews with the partners and focus groups with students will be integrated in order to address the first research question regarding partners’ and students’ perspectives about the usefulness of social media for health and PA promotion. Then, in chapter 4.3, findings from the partner interviews regarding the key goals and purposes of using social media within the MoveU campaign will be highlighted in order to inform the evaluation of the second research question which explores the effectiveness of the MoveU campaign according to the goals and purposes for which it was set out for. Then, in chapter 4.4, findings from the analysis of Phase two, which combine analytic data from Facebook Insights with a content analysis of posts delivered from MoveU, will be presented. Finally, in chapter 4.5, findings from Phase three reflecting students’ reception of the MoveU social media as well as general lessons learned and key recommendations about the use of social media in health and PA promotion will be briefly presented. Key findings from all of research phases will be synthesized and discussed in the discussion.

4.2 Results from phases one and three: The role of social media in health and PA promotion from partners’ and students’ perspectives

4.2.1 Participant characteristics

Nine partners were interviewed, and they represented all of MoveU’s on and off campus partnerships. Overall, from the St. George campus, one interviewee was a Communications and Programme Intern at Hart House, one was the Community Health Coordinator from Health and Wellness, one was the Director of Public Relations and Communications in the Faculty of Kinesiology and Physical Education, one was the Social Media Communications lead in the same faculty, one was the MoveU Crew Coordinator, and one was the MoveU Program Director. In addition, one interviewee was the Vice President of Marketing at ParticipACTION, one was the Athletics and Recreation Program Director from UTM and one was the Fitness Program Coordinator from UTSC.
Overall, there were 23 students in the exposed focus groups and 22 in the not exposed, with a total of 45 students who participated in the focus groups. In total, 61% of students were in first year, 36% were in second year, and one student was in fourth year. The majority (75%) of students were between 18-19 years old. Over half of the participants (57%) lived with their family and 32% lived in residence. A relatively higher proportion of unexposed students (67%) compared to exposed students (48%) lived with their family. The rest either lived in residence or lived off campus (i.e., with other students). Despite best efforts to keep focus group numbers relatively even, far fewer students showed up for the UTSC focus groups (four students participated in the exposed focus group at UTSC and seven students in the not exposed focus group at UTSC). For further demographic details regarding students involved in the focus groups, see Table 2.

4.2.2 Overview of responses

All partners agreed that social media is a useful tool for health promotion and discussed ways in which social media fits into health promotion. Although not every student was prompted to answer yes or no to this question, it was clear that the majority of students agreed that it is a useful tool within health promotion. To further prompt responses about the utility of social media, partners and students were asked about how they think websites and social media compare. There was some congruence in perspectives between partners and students, as well as some incongruence which will be presented. Partners’ responses will be denoted by two initials (i.e., AM) whereas students’ responses will be denoted by a pseudonym and the campus they were from (i.e., Phoebe, UTME [University of Toronto Mississauga campus “exposed” focus group; UTMU would be unexposed]).

4.2.2.1 Everyone is using social media, especially the younger generation

Most partners considered social media to be an important tool because of the sheer volume of people who use social media, and because of how it has become engrained in our culture. This has created the notion that social media cannot be ignored in a health promotion context, as
Table 2.

*Characteristics of Focus Group Participants*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N=45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year of study&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>27 (61.4)</td>
</tr>
<tr>
<td>2</td>
<td>16 (36.4)</td>
</tr>
<tr>
<td>4</td>
<td>1 (2.2)</td>
</tr>
<tr>
<td>Age&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>20 (45.5)</td>
</tr>
<tr>
<td>19</td>
<td>13 (29.5)</td>
</tr>
<tr>
<td>20</td>
<td>5  (11.3)</td>
</tr>
<tr>
<td>21</td>
<td>4   (9.1)</td>
</tr>
<tr>
<td>22</td>
<td>1   (2.3)</td>
</tr>
<tr>
<td>23</td>
<td>1   (2.3)</td>
</tr>
<tr>
<td>Living situation&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Residence</td>
<td>14 (31.8)</td>
</tr>
<tr>
<td>Off campus</td>
<td>5  (11.4)</td>
</tr>
<tr>
<td>With family</td>
<td>25 (56.8)</td>
</tr>
<tr>
<td>UofT campus</td>
<td></td>
</tr>
<tr>
<td>St. George</td>
<td>18 (40)</td>
</tr>
<tr>
<td>UTM</td>
<td>16 (35.6)</td>
</tr>
<tr>
<td>UTSC</td>
<td>11 (24.4)</td>
</tr>
<tr>
<td>Exposed</td>
<td>23 (51)</td>
</tr>
<tr>
<td>St. George</td>
<td>8  (17.8)</td>
</tr>
<tr>
<td>UTM</td>
<td>11 (24.4)</td>
</tr>
<tr>
<td>UTSC</td>
<td>4   (8.8)</td>
</tr>
<tr>
<td>Not exposed</td>
<td>22 (49)</td>
</tr>
<tr>
<td>St. George</td>
<td>10 (22.2)</td>
</tr>
<tr>
<td>UTM</td>
<td>5  (11.1)</td>
</tr>
<tr>
<td>UTSC</td>
<td>7   (15.7)</td>
</tr>
</tbody>
</table>

<sup>a</sup>All participants were females. <sup>b</sup>Demographic information is missing from one participant from the St. George “not exposed” focus group for year of study, age, and living situation.

explained by HM who said, “[Social media] is a tool that I don’t fully understand but is a huge part of our vernacular, our culture right now, around communicating.” In the same regard, TL said, “I think from a communications [perspective, it is] an opportunity to speak directly to who you need to speak to, [so] I think social media is an important channel to consider. More and more people are involved in that so it can’t be ignored.” NC also spoke to this when she said:

I think it’s a huge…social media in general is a big part of our everyday lives…It’s part of our daily lives and so I think it’s a great tool to reach people especially if you want them to incorporate physical activity into their daily lives. Like, what better way than to reach them [undergraduate students] on a platform where they’re communicating every single day.
More specifically, and as was highlighted in the above quote, most partners (n=7) mentioned the relevance of using social media for communicating with the younger generation, because from their perspective, that is the age group that uses social media most pervasively. The following quotes illustrate this consensus:

To actually promote health I think it’s a great tool because the more that [the students] see it, the better, [and] the more it will sink in. I mean, Facebook is one of the most popular tools used now with students, so I think it will work really well. (AL)

I think it has to be a tool [used], because it’s where the world is going. It’s where the youth of today are, and they are the ones who are moving the world forward...(AM)

Most, if not all students in all focus groups also agreed that social media is a useful health promotion tool for their age group. Zoe from STGE said, “Basically I think social media would really reach out to our age group,” which everyone agreed with.

Further insights regarding most youth being users of social media were gained from asking students to compare social media to websites for health promotion. For example, Luz from UTMU said, “I think social media is more effective [than websites], because we use it anyways to communicate, so we’re already on it. Whereas with websites, we actually have to physically go to that website just for one purpose.” Further examples of students mentioning their generation being highly present on social media are mentioned in the following sub-section.

4.2.2.2 Students pay attention to messages from social media

It was clear throughout the focus groups that most students use at least one social media platform on a regular basis, and that the partners are aware of this. It is important to note that students indicated that they actually pay attention to what they see on social media, and partners were accurate in thinking that social media is a useful tool for health promotion because students actually pay attention to the messages:

Yeah, [social media is] what they listen to, that’s where they get their guidance, that’s where they interact with people, that’s where they find their community. It’s a huge chunk of their life. (AM)
I think that when students are between classes the first thing they do is flip on the phone and see what they are missing, sometimes when they are in class too. So that’s the way of getting to them, so that’s where they are getting their messages. So I think that we have to use it because we have to access what our target audience is accessing. (HM)

In accordance, several students also mentioned that they actually pay attention to messages that are posted to social media. As Alexa from UTME said, “Everyone has a Facebook and everyone has a Twitter account, so it’s a really good way to interact with, and to get the message from social media.” In the same regard of receiving messages and information through social media, other students from various focus groups said:

…you’re always on your phone or your computer, so you’re always checking into Twitter or Facebook or Instagram, or whatever you have, or Tumblr I guess. I don’t use all of those, but I know at least everyone has at least one of those, probably. To get updates or information through it. (Jessica, STGE)

Like on twitter, I follow a couple of health and nutrition accounts, and they tweet different workouts or simple and healthy snacks to make, like random things, and when I first wake up in the morning and I scroll through my timeline and yea, I do open them up and look at it, and it is information that I take in. (Ali, UTMU)

A few other students mentioned paying attention to social media particularly during their down time, as the partner HM also guessed when she spoke about students checking their social media accounts between classes (see: above). For example, Myrna from STGE said, “I think that’s when people are most likely to actually read it. Like, if it shows up on your news feed, that’s when you’re just sitting at home and actually having the time to read it.” Another student from STGU went on to say:

Absolutely I think it is [a useful health promotion tool]. I think you’re on those different platforms and you’re kind of distracted or you have some down time, and it’s kind of that one time where you’re not running around the library or running to class, where you can kind of sit back and be like, ‘Okay, yea, maybe I should do that.’ It’s kind of a down time thing. (Amil)
Evidently, both partners and students share common sentiments regarding one of the primary uses of social media in health promotion which is that through social media, we can target and reach certain audiences who will pay attention to the messaging. There were no real disparities in opinions about youth being very heavy users of social media. Thus, it is a ubiquitous channel to exploit for health promotion purposes, particularly for the younger generation.

4.2.2.3 Social media is a place for conversation development and two-way communication (participatory and reciprocal)

Most partners thought social media was a place for two-way communication (i.e., between those communicating health messages and those receiving those messages) and “meaningful exchanges” (n=7). There were disparities in opinions about using social media for meaningful conversations with the audience, between the partners and the students. One of the partners who had the impression that social media can effectively be leveraged for health promotion through participatory engagement said:

To me, this may be really old fashioned or old school, but to me, communication is so critical to health promotion. And I don’t mean me telling you something or giving you information, but having a meaningful exchange about why you’d want to do something. (HM)

This notion of using social media for participatory two-way communication was also highlighted by a few partners who mentioned the relevance of social media for starting a conversation:

I think the appeal with social media is the more interactive component, and the fact that it’s more user-driven, so it’s not someone telling you something, you’re a part of a conversation… Right. The two-way communication, definitely. (NC)

Well social media is living communications. So, it creates the opportunity for two-way communication. Whereas a website is very much one-way communication, and it’s, ‘Here’s the information, we don’t want to talk to you, you can come find us.’ Facebook and Twitter, Twitter in particular allows really for a conversation to develop and happen. And I think a lot of students find that more exciting than a website. (DB)
I think that there are more opportunities for the conversation and the interaction. Part of the fun of Facebook is someone makes a comment, or how does that respond. Like even if someone is triggered by something, that is almost entertaining because then there is a response and an opportunity to have a conversation… (FA)

Interestingly, when students were asked to explain why they think social media is useful for health promotion, and to compare social media to websites, no students mentioned this participatory, conversation-style engagement.

When students were explicitly asked about their opinions towards engaging in discussions on social media on the MoveU accounts, several students from STGE and UTSCE talked about not being interested in engaging in conversations and discussions, and that “liking” things is greatest level of engagement that they and their peers usually engage in. Two students from UTSCE talked about how they would either need an incentive to engage or they would just scroll through posts instead of reading or engaging in a discussion:

I think [I would look at] just the posts. I’m not going to go look through all the discussions…it depends on the question for me. If I find it interesting, I’ll answer. Like if it was, ‘If you comment then you get free food’ then yea, I’ll comment on it. But if it was just commenting, probably not…. [The post needs to be] something that benefits people, that’s when I find they’ll take the extra mile and go answer. But if it doesn’t benefit them in any way, they’re not going to take the time to do it. (Kori, UTSCE)

If it was a poll, maybe. [Others agreeing]. If it was a poll and you just had to click something, then maybe. I’m a little bit lazy that way. But, like typing out a legitimate answer, probably not. I’d probably scroll through it. That’s just me, though. (Marcella, UTSCE)

Three students from STGE spoke more about “liking” things being the extent of their interaction with posts. For example, one student explained:

So, I don’t think I’d be one to—I’d probably “like” [a post], but that’s as far as it would go. I probably wouldn’t… that’s just my personality, I’d rather talk to you in person than say something over Facebook. I don’t like technology, so I like this kind of thing [the focus
group], rather than have to talk over computers, that’s just not my personality. (Olivia, STGE)

Other students from the same focus group went on to explain that, “It’s a lot to invest in, when you’re going to start a discussion…” (Zoe), to which Shayla added, “You have to reply…” in a way that made engaging in discussions sound exhausting. A few other students from STGE talked about their hesitation towards talking about certain topics like mental illness on social media, “If it’s something about mental illness, I think that’s a huge barrier.” To which Sara and Olivia agreed, “Just sensitive issues, I guess. You have to be careful” (Sara) and, “Just because a lot of people don’t know how to talk about it. So that’s definitely a touchy subject. I’m not sure if I would comment…” (Olivia) Despite a few of the negative opinions (above) that were expressed towards participatory engagement, a couple of students do see the value in discussions via social media, such as Maxine from STGE who sees the appeal in discussions, but thinks that on social media platforms such as MoveU’s, people will not be that engaged when she says, “I think discussions are really good, but the majority of people just ‘like’ the post and then they just move on.” The only student who really expressed positive sentiments towards discussion was Sara from STGE:

I like discussions. If anyone felt motivated to comment on something, I think that would be cool. Only because discussing things is always fun, and you get new ideas thrown out there. And if it is on social media, it’s like, you comment when you need to, and it’s happening all over the place, and people from all over campus can talk and interact with each other.

In sum, the majority of the partners mentioned conversation and two-way engagement as one of the most valuable roles of social media within health promotion, whereas students’ opinions, for the most part, did not reflect the same perception.

4.2.2.4 A place to find community and social support

Four partners also considered social media to be a place where people could find social support and connect with a community of people. AM highlights this when she talks about how social media is better than websites and says:

I think [social media is] better because they get to interact with it, they get to ask questions, get clarification, find other people who are also interested in things you’re interested in,
[and] find a community of people who maybe are trying to incorporate life-changes into theirs.

Another partner expressed her perceptions on the use of social media in finding community and social support:

 Well I think that in terms of other people sharing their stories and knowing that there is some power with people sharing their stories and inspiring others…I think this idea of being connected to a community, people are feeling that they are trying to address something on their own but there is some kind of community that they can connect to and it’s not just them, that there’s others who may be [addressing the same issues]…I think it’s an opportunity to have dialogue and conversations and potentially influence attitudes on certain things and then I think it connects with others that can support them. (TL)

In line with this idea of social support and exchanging stories, two students from UTSCU mentioned they like exchanging stories, particularly success stories:

 I think personalized sayings from people are really a drive. Because if you see on YouTube, they have that one person saying their own story about how this happened to them, like that’s also pretty good…Those who participated who, benefitted from it. Success stories. (Tina)

 I was thinking more like, because there’s more people to share your story with, and for you to hear about their stories. So, in that sense, I think[social media] would be good…Or even like suggestions, like what worked for them, and what they think would also work for you. Things like that. (Nolene)

Thus, social media may have a role to play in helping students find a space where they can share stories about their success in their PA pursuits. Although this opinion was expressed more so by the partners, it is clear that some students see value in it as well.

### 4.2.2.5 Rapid Communication of Messages

Over half (n=5) of partners thought that social media is advantageous for health promotion because it is a place where messages can be delivered easily and quickly. As LM said, “I think that it’s short and sweet, too. I think it’s a nice, easy, quick way of getting an effective message
across…” AM shared a similar opinion when she said, “Advantages? I think it hits a wide-spread group of people without having to get them to go or convene anywhere. I feel like it can get a lot of messages across really easily.”

4.2.2.5.1 Viral message sharing

One partner, BN, mentioned the viral aspect of social media as being useful for health promotion when she said, “The fact that there’s a viral element to it. So, it’s probably the most efficient way that we can reach a group of like-minded kind of co-located students.” Similarly, several students also mentioned that social media is useful for rapid message dissemination particularly among networks of friends. For example, Isabel from UTSCU said:

Social media is easier to send it around, because once you like it, all your friends can see that you liked it, or you can share it, so it’s much faster. Whereas [with] websites, you have to go on the website after clicking the link I guess.

Mahta from UTME spoke about the viral nature of Twitter when she said, “Also, with Twitter they could use, you know, hashtags and stuff. Like, every tweet you tweet, use a hashtag at the end. Like, hashtag MoveU, then it becomes a trend, and everyone gets involved.” Another student, Nolene from UTSCU said, “I think it’s easy to get information around like that. Because you can just link your friends to it, you know? [Agreement].” Isabel also added, “Social media is easier to send it around, because once you like it, all your friends can see that you liked it, or you can share it, so it’s much faster. Whereas [with] websites, you have to go on the website after clicking the link I guess.” Another student spoke to the social nature of these platforms when she said:

Some websites will usually have a Facebook ‘like’ or ‘share’ or something. So, if you’re looking at an article or something, I know I do this a lot usually when I’m bored in class, I will scroll down Facebook and I will look for articles to read, and I’ll just look at the ones that people have ‘liked’ or something, or shared, and a lot of them are really interesting.

Clearly, students tend to pay attention to things that people within their own “social network” are paying attention to as well. Partners did not appear to acknowledge this as a beneficial component of social media when it comes to health promotion (they seem to care more so about
direct conversations developing on the social media pages themselves, instead of the more indirect engagement).

### 4.2.2.5.2 Ability to answer audiences’ questions immediately

A few (n=3) partners mentioned that social media provides health promoters with the ability to answer people’s questions with a high level of immediacy. This capacity to reach out to people immediately and answer their questions was highlighted in the following statements:

…going and reaching out to your clientele as opposed to them coming to you, like that is essentially what social media is all about. And it sort of allows you to answer questions as they develop, as opposed to being reactive and, someone getting frustrated that they had to come all the way to the Athletic Centre or Hart House to get their question answered. (DB)

I like that social media kind of breaks barriers and makes things more personal, especially Twitter, I find that’s one of the personal social media networks that I’ve been a part of, and so I like that you can kind of reach students directly, you can kind of see what they’re thinking, you can interact with them one-on-one… Like it’s just this nice, quick way to reach students and figure out what they really want because they are telling you [what they want], and be able to deliver what it is that they want in a quick and effective way. (NC)

Unlike partners, students did not mention that one of the useful functions of social media is in its ability to have their questions answered rapidly by the health promotion organization(s).

### 4.2.2.6 Event promotion

An important way in which social media is relevant for health promotion, as was indicated several times in all of the focus groups, is in promoting events that are appropriate for the health promotion strategy. There are two ways in which events can be promoted: by posting about the event, after the event, and before the event occurs. Post event promotion can serve to give the audience an idea about what the events are like with a view of enticing them to want to attend subsequent events.
4.2.2.6.1 Post event promotion

Several students from various of the focus groups expressed their desire to take part in events (some MoveU specific) once they see photos of them. For example, Keira from STGU said:

I think that posting pictures of the actual classes and programs is so important, because you can be like, ‘Hey, I can go, that looks like something I would feel comfortable with, that’s something I would like to be involved with.’ So, seeing it in action [is important].

One student, Adele from UTSCU, spoke specifically about how seeing pictures on social media of other friends involved in things can entice her to want to attend those events next time when she said, “Or even on Instagram, if everyone takes a picture and they hashtag it right, and they see it, and they see that something’s going around, like an event or something, they kind of want to take part in it…” similarly, Phoebe from UTSCE said, “So I’ll be like, ‘Oh yea, that looked like a lot of fun. Too bad I didn’t go. Too bad I couldn’t.’ [laughs] And then you sort of keep your eye out for a similar thing next time so that, Okay, yea, I remember that looking fun, let’s go now.”

4.2.2.6.2 Future event promotion

In terms of using social media to advertise future events, two students from UTSCE and one from UTSCU also spoke about how Facebook can be used for event information and reminders:

And like Facebook has this thing where you can see, not just the events that you’ve been invited to, or that you’re interested in, but other events that your friends are going to as well. Even if I haven’t been invited or I’ve never heard of it, it’ll tell you, ‘Oh from past events that you’ve been to, here are some things you might be interested in, or here’s what your closest friends are up to, why don’t you join them?’ [And I’m like], ‘Yea, sure why not!’… (Phoebe, UTSCE)

And [social media groups] would be a really effective way to help get people to know what activities are available, what events are coming up and stuff like that. (Sienna, UTSCU)

It became clear throughout the focus groups that most students like to know what is going on, on their campus. It is just a matter of them having the proper resources to find out. Clearly, one of the most profound ways in which social media can be leveraged for health promotion, is in
attracting people to events that are related to the health topic or campaign, so that they can become actively involved in the health topic and/or campaign. Partners mentioned event promotion (i.e., campus recreation events) when they were talking explicitly about goals and purposes for the social media component of the MoveU campaign, which will be highlighted in the subsequent section.

### 4.2.2.7 Social media as a link to other information

Various students in the focus groups mentioned using social media as a link to more information. As one student put it, “And all you really need is just one link, or one post in your feed, and then suddenly you have access to all of the things it has to offer” (Bashair, STGU).

Two students from STG also said:

I think it may be helpful if [health information is] on Facebook, but there is a link that can lead you to a website. Because sometimes people would think that just information posted on Facebook isn’t really reliable. Because there’s a lot of sketchy stuff [Agreement]. And if you link it to a website that has more detailed information and how to be active and stuff like that, maybe people would trust it more…. (Nina, STGE)

I think that online is so important, because when I see a poster, I’m probably not going to follow up with it. If I see something on Facebook or Twitter, I’ll click the link and I have the opportunity when I’m just at my computer to find out more. But if I see a poster, I’m probably going to forget about it by the time I get to a computer. (Bashair, STGU)

Further insights about how social media can be a useful tool to link students to more information were gained by asking them how they think social media compares to websites. One student, Khloe from UTME said, “Well maybe, you can share your social media, and link it to a website and say, ‘Oh we have stuff on the website, we updated something, go check it out.’” To which Mahalia agreed, “Yea, I feel like social media is more to get the word out there, and to get everyone to pay attention to it, but the website is where you can find actual information.” Overall, students see social media, and particularly Facebook, as a good tool to link to other resources and sites.

Only one partner mentioned the benefits of using social media to link to more information when she was talking about how people can engage with social media:
Traffic [being sent] to different websites. So if I say, ‘Come check out this drop in class at Hart House’ and I give them the Hart House website, that would also give traffic to the Hart House website. (DB)

The aforementioned comments may suggest that social media is most useful at just providing a quick snapshot of information, and providing links to other credible sources.

4.2.2.8 Environmentally friendly and cost effective

One partner, TA, spoke about the cost effectiveness of using social media for health promotion when she said, “We can send, essentially free content that we can find on the web that we don’t have to pay for, so if we’re talking about resources, it’s really cost effective.” Similarly, a few students, particularly ones from the unexposed focus groups, spoke about the cost effectiveness and also environmental impact of using social media for health promotion, by comparing social media to other common promotional strategies. Two students from UTMU agreed on this when they said:

Sometimes I feel bad, like for people that are handing out the little slips or brochures or something like that. Even posters, because we try to save paper but then we’re just giving these out and we know, we’re kind of expecting that they’ll just either walk ahead and leave the poster behind, or the brochure, or they’ll just throw it away. So in a way it’s sort of helpful for the environment for using Facebook and websites. [Ariana: Yea, I agree with that.] And, they won’t have to go through the trouble of printing all these things out and stuff like that. (Ana)

Another student from the STGU group also talked about cost effectiveness and compared social media to other promotional strategies when she said:

Yea, like I think there are a lot of things you can do through social media that don’t cost any money [to the campaign], like you can have a lot of visual stuff, you can have program things or training things, all online that people can just access when they see one thing. And all you really need is just one link, or one post in your feed, and then suddenly you have access to all of the things it has to offer. (Lauren)
In terms of being a health promotion strategy, students acknowledged the benefits of social media being a promotional strategy that saves both time and resources.

4.2.2.9 Issues with social media for health promotion

Although most of the partners’ and students’ perspectives about social media in health promotion were positive ones, a few concerns were mentioned.

4.2.2.9.1 Posts can be missed

Although students claim that social media is a platform that is easily accessible and that they are already on those platforms, two students from UTSCE expressed one concern over using social media for health promotion, which is that posts can easily be missed. Tamara said, “Well for me, I feel like there’s so much stuff on Facebook. I get tired of scrolling through the whole thing. And again, everything’s really clustered. So, it’s hard for any one event or whatever to stand out.” Eloise then continued to say, “And it depends on what time you post it, because if you miss it, then I probably won’t scroll through the whole feed.” It is clear that one issue with social media is that messages can get buried and often times, students are following so many different accounts that they are not able to see what each and every one has posted.

Partners expressed the same concerns when they were talking particularly about the MoveU social media accounts and having three campuses sharing one Facebook or Twitter platform. This was evident when AM talked about posts from one campus driving posts from another campus down the wall or feed, and when LM talked about posts from a few hours ago being “old news”:

It’s still a challenge with scheduling - scheduling posts and making sure that a St. George post doesn’t come right after a UTM post to drive it down the wall. There’s so much politics to it, so it’s challenging…” (AM)

Well students don’t work on those [nine to five] schedules, and especially undergraduate students. [Students are] maybe getting out of bed at noon. So if you are posting something on Twitter or Facebook at nine, that’s old news three hours later. (LM)
4.2.2.9.2 Students may not actively seek health information on social media

Interestingly, although most students thought that social media is a useful tool for health promotion, four students from exposed groups expressed that they wouldn’t actively seek health promotion related things from social media. This was evident when Maxine from STGE said, “Yea. We don’t really specifically go to Facebook for that [health] information, but it just pops up.” To which BF agreed, “But when it comes, you’re like ‘Oh, cool!’” In the same regard, a student from UTME went on to say:

I feel like I won’t particularly go on social media to look for health related stuff [a few people laughing]. But when it pops up, you know when people spend endless time on social media, so when it pops up, and you have to time then you will read from it, but I would not particularly go on social media to look for health related stuff [Laughs]. (Mahalia)

A few other students in the same focus group expressed using other internet resources for health information, for example when Khloe said, “You can go on google [for health related information]” and Mahta agreed, “Yea, I’d just check google [for health related information].”

4.2.3 Summary of findings

This analysis focused on exploring the partners’ and student’s perspectives about the role of social media in health and PA promotion. Overall, partners and students showed positive feelings towards the use of social media in health promotion and discussed various reasons why they think it can be a useful tool. The most popular reason was because of their perception that everyone uses social media, and therefore it is a tool that cannot be ignored in health promotion. Some students mentioned that they pay attention to what others in their network are paying attention to. One major finding specifically from the partners’ point of view was that SNS can act as a multi-way communication channel between the students and the campaign and between the students, themselves. Other key roles for social media in health promotion included the ability to disseminate messages quickly, and to do so with the right voice; to enhance social support and the sense of community; to promote events prospectively and retrospectively; and to link the end users to other sources of information. Some students expressed that they would not seek social media sources for health information, and that they would prefer to use search engines like
Partners thought that students can be overloaded with information on SNS and therefore can easily miss posts from the health promotion channel.

4.3 Goals and purposes of the MoveU social media component: Results from partner interviews

The primary findings of this section of the interviews, concerning goals and purposes of using social media in the MoveU campaign, were that: i) social media serves to increase awareness of the MoveU campaign and ii) partners thought social media was meant to facilitate multi-way interaction and engagement between the students who were receiving the campaign, and between those students and the MoveU campaign itself. The results of this section also represent further insights about what the partners think of the value of social media within health promotion.

4.3.1 Increase brand awareness of MoveU

When partners were asked about key strategies that were used to raise awareness about the MoveU campaign as a whole, most partners (n=7) highlighted the social media presence as one of the key strategies. One partner, AM, said, “I think social media was huge and there was a lot of… I think it was probably the best executed [strategy] actually. There was a lot of different ads…” When referring to strategies to generate awareness of MoveU, AL also said, “So posters, postcards, the promo’s, the buttons, the giveaways, the Facebook campaign obviously, social media.” Another partner, DB, said:

I think [to generate] awareness… there was obviously a big push on social media. I think that that was sort of slow to start and then we got some good ground and it sort of built and built and built and now we’re doing really well on social media, I think… I mean, the social media was sort of a life on its own…. I think the social media [was really effective in driving awareness], because the peers could direct their peers to the social media piece. So once you got people directed towards it, I think that was helpful as well.

Accordingly, one of the main goals of the social media strategy for partners was to increase awareness of the MoveU campaign.
4.3.2 Increase number of followers

All of the partners were asked if they could recall what the goals and purposes of using social media within the MoveU campaign were. It was clear that no clear objectives/goals were identified at the outset of the design and implementation of the social media component of the MoveU campaign when HM stated:

…I’ve heard this from [another MoveU partner], too, he’s like, ‘I don’t think we really have a clear sense of what we’re trying to do here.’ And I think that’s where we’re struggling too. I think [the goals have] been more tactical, as opposed to more objective, right?

Most of the other partners (n=5) recalled that goals were set in terms of number of followers to achieve. However, this number was never a concrete goal from the outset, rather, it was a target that was set during the course of the first semester of the campaign. As HM put it, “Other than, let’s try and maximize our Facebook ‘Likes’, there wasn’t sort of a very clear end goal for all.” The goal for reaching 1000 Facebook followers in the first year of the MoveU Campaign was more of a desire than an objective goal, as stated by NC:

[Goals were identified] by myself, but they were never concrete. For instance the Facebook, it was my desire, my goal to reach 1,000 followers by the end of the term. We did exceed that much to my excitement, but that wasn’t a hard number that was identified. We did want to increase the numbers just so that we could get a sense of the fact that the campaign is growing and we’re reaching more students, so we did want the numbers to increase, but, like I said, the hard numbers, there was never pressure to kind of, ‘Okay, 800 liked it.’

Thus, from an outcome perspective, it was important to see that the pages were growing in terms of the numbers of followers, and in its first year of implementation, partners were hoping to see about 1000 students “Liking” the MoveU Facebook page.

4.3.3 Reach the target audience

When partners’ were broadly asked about the key goals and objectives of the MoveU campaign, all of them identified targeting and reaching first year females. Interestingly, when asked about specific goals and objective for the social media component of the MoveU campaign, only one
partner mentioned reaching the target audience, “Off hand, I believe [the objective] was just to reach our target population” (AL).

4.3.4 Multi-way engagement and discussion

Further insights about the goals and objectives of the social media strategy were gained when partners were asked to reflect upon how they were hoping students would engage with the MoveU social media platforms in its first year of implementation. Partners’ responses regarding engagement were in line with what they think the uses of social media for health promotion are—that is—to initiate some form of participatory engagement or conversation. Six partners’ responses revolved around them wanting to see more engagement through conversations and discussions, instead of just through “likes” of posts. For example, DB said:

I would assume that the MoveU campaign wants to start a conversation with students, they want to start a dialogue…I would think [the goal] would be a two-way communication…it usually takes about a thousand followers, which we’re at now, and upwards, to sort of develop a conversation with students.

In the same regard, AL said, “I hoped there would be a little bit more discussion. There’s a lot of ‘Likes’ [fans] now which is great, but I was hoping there would be a little bit more discussion and involvement.” NC summed up many of the partners’ responses about discussion and active, participatory engagement when she said:

I was hoping that they [the students] would interact with the accounts and not just—especially with the Facebook—not just absorb the information passively and not take part in the conversation. I definitely wanted to see students across the board commenting, ‘liking’ things, sharing it with their friends, and starting conversations about the content that we’ve provided.

4.3.5 Get students thinking about PA

A few partners (n=4) recalled that one of the objectives of the social media strategy was for the posts to start triggering the thought process about activity, as LM put it:
I mean my impression, to get [the students] to start to think about different ways that they could engage on campus...It was a post to start triggering the thought process about, ‘Activity is important and how can I be active and where are the different opportunities?’

AM similarly thought the social media strategy was meant to trigger the thought of activity:

I think it was one way to get our brand out there, and to get people thinking about physical activity. I don’t think anybody thought that through posting a motivational picture on Facebook somebody who had never tried sports before would go out and get a squash racquet and start playing, but I think it gets people starting to think about it.

In the same regard, BN said, “But, really the goal is to kind of whet their appetite or engage them in just thinking about physical activity in some way.” It was also about getting students excited about being active, as HM said, “We’re just trying to get people excited about being active. And then part of that is [students knowing] what’s happening on my campus.”

4.3.6 Deliver the main MoveU messages

Two partners recalled the importance of sticking to the MoveU key messages in the posts, as one of the goals. The MoveU messages were that “Physical activity can be anything you want it to be” and that “Physical activity is you at your most productive”. This goal of trying to convey the MoveU messaging was reflected when one partner said:

I know that the intent is to just spread the message, the overall MoveU messaging… so we use [social media], it’s kind of twofold. There is one objective to spread the overall general messaging of MoveU, and then it’s also a place where students can go for more specific information…We always tried to reinforce the message of physical activity. Yes, there are plenty of times where that message will overlap with broader messages of general wellbeing. So, you know, healthy food, or different like mental health awareness strategies, or things like that…but we try to keep it about 80% physical activity, and 20% broader general well-being. (NC)

DB also spoke about the importance of constantly engraining MoveU messages in the posts when he spoke about the importance of finding a particular balance between being funny and appealing to the audience and still connecting each post to the campaign messaging:
In terms of Facebook, when you start to post to Facebook, you realize just how addicted to the numbers you become and like everything is based on the numbers, and sometimes a big problem with social media is that sometimes they can get lost in ‘likes’ and comments and ‘shares’ and they almost lose track in the message, and I think that’s the key thing that MoveU should definitely continually revisit throughout next year, is that we don’t just become a slave to ‘likes’ and comments and everything…We should tie everything back to physical activity, then any food post we should have to tie back to physical activity. Like, ‘What are you eating today so that your workout can be more productive?’ (DB)

4.3.7 Disseminate recreational information and information about campus events

Another purpose of the social media component of the MoveU campaign that was highlighted by most partners was to share information about recreational facilities, and recreational events and activities that are going on in and around campus. For example, LM said, “I do remember [the partners] saying it was about making sure that [students] were aware of opportunities outside of the actual athletic complexes.” Another partner, NC said, “…and then we also share specific information about either facilities that are open to students on campuses, or activities that are going on that they may not know about.” DB also said, “You’re trying to show people different events and things that they can do on campus to get physically active.”

In contrast to what the majority of the partners said above, BN expressed that the MoveU partners tried to limit the promotion of on campus facilities when she said:

Well basically, in some of those discussions that we had, we sort of said, as much as we want to kind of promote our own things, let’s try and limit how much we post hours at the RAWC [Scarborough Athletic Centre] for example, or whatever. Let’s try and do more things that are like pop culture, or interesting, or inspiring messaging instead of necessarily really specific detail oriented information that we might be providing on our own program pages.

Clearly, promotion of recreational facilities and events on campus was one of the main purposes of the social media component of the MoveU campaign. Notably, none of the partners mentioned the promotion of MoveU specific events as a purpose.
4.4 Results from phase two: Tracking of the MoveU Facebook page using content analysis and Facebook analytics

4.4.1 Reach

Over the course of the 2013/2014 academic year (August 27 2013 to April 28 2014), the MoveU Facebook page gained 986 new fans for a total of 2250 fans (see Table 3) [note, 1,000 was the goal/number recalled by partners for the first year of the social media which was not tracked in this study]. Figure 3 shows a steady growth in Facebook fans over the evaluation period. Figure 4 shows that: a) Engagement with posts follows the same pattern as reach; b) the main source of reach was paid reach (targeted Facebook advertisements); and c) new page “Likes” per day (i.e., the amount of new fans per day) follows the same pattern as the total reach. As shown in Table 3, 84% of fans were female (n=1890) and 83% were 18-24 years old (n=1867) and therefore representative of the target audience. These numbers represent all of the fans from two years of the Facebook account being active. The amount of new fans or “likes per day” is mainly influenced by paid reach (Facebook ads) (see Figure 4). Therefore, the main way of getting new fans to the Facebook page was through paid advertisements that were tailored towards the target audience.

![Figure 3](image)

*Figure 3. Displays a steady growth in Facebook “Page Likes” (fans) over time.*
Figure 4. MoveU Facebook Page Reach versus new “Page Likes” (fans) per day. The MoveU page obtained the most new fans whenever Facebook advertisements were being used as depicted through the “paid reach” line. Organic reach is the total number of unique people, fans or non-fans, who saw any content about the MoveU Page (in their own News Feed or on the MoveU Page itself) through unpaid distribution. Paid reach is the number of unique people who saw an ad or sponsored story that points to the MoveU Page. Viral reach is the number of unique people who saw the post from a story published by a friend (i.e., if your friend “liked” a MoveU post and it turned up on your News Feed).
Table 3.

Demographics of MoveU Facebook Page “Likes” (fans) as of April 28, 2014

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n/ (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MoveU Facebook Page “Likes” (fans)</td>
<td></td>
</tr>
<tr>
<td>August 27 2013</td>
<td>1264</td>
</tr>
<tr>
<td>April 28 2014</td>
<td>2250</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>84</td>
</tr>
<tr>
<td>M</td>
<td>16</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>13-17</td>
<td>0.3</td>
</tr>
<tr>
<td>18-24</td>
<td>83.3</td>
</tr>
<tr>
<td>25-34</td>
<td>11.7</td>
</tr>
<tr>
<td>35+</td>
<td>4.7</td>
</tr>
<tr>
<td>City</td>
<td></td>
</tr>
<tr>
<td>Toronto</td>
<td>1749</td>
</tr>
<tr>
<td>Mississauga</td>
<td>144</td>
</tr>
<tr>
<td>Brampton</td>
<td>42</td>
</tr>
<tr>
<td>Markham</td>
<td>31</td>
</tr>
<tr>
<td>Oakville</td>
<td>13</td>
</tr>
<tr>
<td>Other</td>
<td>271</td>
</tr>
</tbody>
</table>

4.4.2 Posts: Descriptive overview

517 of MoveU’s posts were captured, representing all of MoveU’s Facebook posts over one full academic year (the second full year of MoveU’s implementation). Thus, there were 517 posts over 246 days, for an average of 2.1 posts per day. 82% of posts were on weekdays, and 18% on weekends. 11% of posts were before 9 a.m.; 25% were between 9 a.m. and noon; 33% were between noon and 6 p.m.; and 31% were between 6 p.m. and midnight (Table 5). Only 5% of posts prompted a response (i.e., “Tell us what your favourite workout is”).

During the deductive coding process, when specifically searching for themes reflected in the HOE, outcome expectancies (O.E.) were further split into outcome expectancies reflecting the
benefits of PA for academic achievements (“PA-academic”); for meeting people and being social (“PA-social”); for mental health benefits such as reducing anxiety and depression (“PA-mental health”)-, and for stress relief (“PA-stress”). In terms of self-efficacy (S.E.), the only influence of S.E. that came through clearly in the posts was vicarious experiences, whereby MoveU had a student blogging about her successful experiences in her pursuit of becoming more physically active through a variety of activities, during her school year. The decision was made to split posts that strictly reflected “Barrier S.E.” from those blog posts that tried to influence S.E. through vicarious experiences, since often times in the literature on self-efficacy, task self-efficacy and barrier self-efficacy are differentiated (i.e., Batey et al., 2014; McAuley, Siobhan, White, Mailey & Thomas, 2011; Rogers, McAuley, Courneya & Verhulst, 2008).

In light of remaining flexible and open to new categories, several other codes were created including: humour/pop culture; opportunities to be active at a MoveU event (OTBA-M); MoveU event recall; tips; and self-management strategies including self-regulation and goal setting (Bandura, 1997) (All of these codes can be found in Table 4, below. See Table 6 in Appendix A for the final codes with specific examples).
### Table 4.

**Means and Frequencies of Indicators of Reach and Engagement in Relation to Content Analysis Codes**

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>% of all posts</th>
<th>Mean Reach</th>
<th>Engagement</th>
<th>Engagement/reach</th>
<th>Talking about this</th>
<th>Talking about this/reach</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All</strong></td>
<td>517</td>
<td></td>
<td>476.3</td>
<td>35.7</td>
<td>7.5</td>
<td>4.5</td>
<td>0.94</td>
</tr>
<tr>
<td>Humorous/pop culture</td>
<td>49</td>
<td>9.7</td>
<td>490.4</td>
<td>53.5</td>
<td>10.9</td>
<td>8.7</td>
<td>1.77</td>
</tr>
<tr>
<td>Video (Embedded in post or a link to one)</td>
<td>19</td>
<td>4</td>
<td>383.3</td>
<td>27.8</td>
<td>7.3</td>
<td>3.8</td>
<td>1.00</td>
</tr>
<tr>
<td>Prompt (Posts that ask for a response)</td>
<td>27</td>
<td>5</td>
<td>521.6</td>
<td>31.9</td>
<td>6.1</td>
<td>4.6</td>
<td>0.88</td>
</tr>
<tr>
<td>OTBA (Opportunities to be active)</td>
<td>248</td>
<td>48</td>
<td>451.2</td>
<td>30.4</td>
<td>6.7</td>
<td>3.8</td>
<td>0.84</td>
</tr>
<tr>
<td>OTBA-M (MoveU PA events only)</td>
<td>135</td>
<td>26</td>
<td>454.7</td>
<td>31.7</td>
<td>7.0</td>
<td>4.5</td>
<td>0.98</td>
</tr>
<tr>
<td>OTBA-C (Other campus PA events)</td>
<td>113</td>
<td>22</td>
<td>446.9</td>
<td>28.8</td>
<td>6.4</td>
<td>3.0</td>
<td>0.67</td>
</tr>
<tr>
<td>MoveU event (Not PA related)</td>
<td>24</td>
<td>4.6</td>
<td>432.4</td>
<td>30.2</td>
<td>7.0</td>
<td>3.4</td>
<td>0.79</td>
</tr>
<tr>
<td>Any pre- or post- MoveU event promotion (PA events, and non-PA events)</td>
<td>189</td>
<td>36.6</td>
<td>461.1</td>
<td>37.6</td>
<td>8.2</td>
<td>4.1</td>
<td>0.90</td>
</tr>
<tr>
<td>Any pre-event promotion (MoveU)</td>
<td>159</td>
<td>30.8</td>
<td>451.3</td>
<td>31.5</td>
<td>7.0</td>
<td>4.3</td>
<td>0.95</td>
</tr>
<tr>
<td>MoveU event recall (with photo[s])</td>
<td>30</td>
<td>5.8</td>
<td>512.6</td>
<td>69.8</td>
<td>13.6</td>
<td>3.2</td>
<td>0.62</td>
</tr>
<tr>
<td>Other campus event (Not PA related)</td>
<td>21</td>
<td>4.1</td>
<td>410.8</td>
<td>22.0</td>
<td>5.4</td>
<td>2.9</td>
<td>0.70</td>
</tr>
<tr>
<td>Workout tips</td>
<td>100</td>
<td>19.3</td>
<td>513.1</td>
<td>45.8</td>
<td>8.9</td>
<td>5.8</td>
<td>1.13</td>
</tr>
<tr>
<td>Tips without workout demonstrations</td>
<td>60</td>
<td>11.8</td>
<td>531.2</td>
<td>49.8</td>
<td>9.4</td>
<td>6.1</td>
<td>1.15</td>
</tr>
<tr>
<td>Tips with workout demonstrations</td>
<td>40</td>
<td>7.5</td>
<td>485.9</td>
<td>39.9</td>
<td>8.2</td>
<td>5.4</td>
<td>1.10</td>
</tr>
<tr>
<td>Theoretical indicators</td>
<td>121</td>
<td>23.4</td>
<td>496.6</td>
<td>33.7</td>
<td>6.8</td>
<td>5.0</td>
<td>1.01</td>
</tr>
<tr>
<td>Self regulation/goal setting</td>
<td>13</td>
<td>2.5</td>
<td>500.5</td>
<td>34.1</td>
<td>6.8</td>
<td>4.2</td>
<td>0.85</td>
</tr>
<tr>
<td>Outcome expectancies (O.E.)</td>
<td>84</td>
<td>16.2</td>
<td>487.8</td>
<td>33.0</td>
<td>6.8</td>
<td>5.1</td>
<td>1.05</td>
</tr>
<tr>
<td>PA-Academic</td>
<td>31</td>
<td>6</td>
<td>512.7</td>
<td>33.7</td>
<td>6.6</td>
<td>5.5</td>
<td>1.08</td>
</tr>
<tr>
<td>PA-Social</td>
<td>21</td>
<td>4.1</td>
<td>484.0</td>
<td>39.2</td>
<td>8.1</td>
<td>4.3</td>
<td>0.89</td>
</tr>
<tr>
<td>PA-Mental health</td>
<td>34</td>
<td>6.6</td>
<td>503.0</td>
<td>34.7</td>
<td>6.9</td>
<td>5.5</td>
<td>1.10</td>
</tr>
<tr>
<td>PA-Stress</td>
<td>34</td>
<td>6.6</td>
<td>452.0</td>
<td>32.4</td>
<td>7.2</td>
<td>4.5</td>
<td>1.00</td>
</tr>
<tr>
<td>Self-efficacy (S.E.) (including student blog)</td>
<td>40</td>
<td>7.7</td>
<td>538.4</td>
<td>34.4</td>
<td>6.4</td>
<td>4.9</td>
<td>0.91</td>
</tr>
<tr>
<td>Blogs (Vicarious influence on S.E.)</td>
<td>12</td>
<td>2.3</td>
<td>450.3</td>
<td>16.1</td>
<td>3.6</td>
<td>1.25</td>
<td>0.28</td>
</tr>
<tr>
<td>Barrier S.E.</td>
<td>28</td>
<td>5.4</td>
<td>576.2</td>
<td>42.2</td>
<td>7.3</td>
<td>6.4</td>
<td>0.97</td>
</tr>
</tbody>
</table>

*Note.* Multiple posts were coded in multiple categories. For example, some posts could have contained two types of theoretical content: outcome expectancies and self-efficacy.
Table 5.

*Means and Frequencies of Indicators of Reach and Engagement in Relation to Time Posted*

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>% of all posts</th>
<th>Reach</th>
<th>Engagement</th>
<th>Engagement/reach</th>
<th>Talking about this</th>
<th>Talking about this/reach</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>517</td>
<td></td>
<td>476.3</td>
<td>35.7</td>
<td>7.5</td>
<td>4.5</td>
<td>0.94</td>
</tr>
<tr>
<td>Weekday</td>
<td>425</td>
<td>82</td>
<td>465.2</td>
<td>33.2</td>
<td>7.1</td>
<td>4.2</td>
<td>0.90</td>
</tr>
<tr>
<td>Weekend</td>
<td>92</td>
<td>18</td>
<td>527.3</td>
<td>47.1</td>
<td>8.9</td>
<td>5.8</td>
<td>1.10</td>
</tr>
<tr>
<td>Time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 a.m.</td>
<td>6</td>
<td>1.2</td>
<td>520.7</td>
<td>39.3</td>
<td>7.6</td>
<td>4.2</td>
<td>0.80</td>
</tr>
<tr>
<td>8</td>
<td>14</td>
<td>2.7</td>
<td>528.4</td>
<td>45.6</td>
<td>8.6</td>
<td>9.6</td>
<td>1.82</td>
</tr>
<tr>
<td>9</td>
<td>39</td>
<td>7.5</td>
<td>503.2</td>
<td>31.7</td>
<td>6.3</td>
<td>5.2</td>
<td>1.02</td>
</tr>
<tr>
<td>10</td>
<td>41</td>
<td>7.9</td>
<td>610.3</td>
<td>50.3</td>
<td>8.2</td>
<td>5.8</td>
<td>0.95</td>
</tr>
<tr>
<td>11</td>
<td>44</td>
<td>8.5</td>
<td>454.0</td>
<td>30.9</td>
<td>6.8</td>
<td>4.2</td>
<td>0.93</td>
</tr>
<tr>
<td>Noon</td>
<td>43</td>
<td>8.3</td>
<td>419.6</td>
<td>31.5</td>
<td>7.5</td>
<td>3.4</td>
<td>0.81</td>
</tr>
<tr>
<td>1 p.m.</td>
<td>35</td>
<td>6.8</td>
<td>417.9</td>
<td>30.7</td>
<td>7.3</td>
<td>3.4</td>
<td>0.81</td>
</tr>
<tr>
<td>2</td>
<td>25</td>
<td>4.8</td>
<td>346.6</td>
<td>22.0</td>
<td>6.3</td>
<td>2.7</td>
<td>0.77</td>
</tr>
<tr>
<td>3</td>
<td>27</td>
<td>5.2</td>
<td>427.3</td>
<td>32.9</td>
<td>7.7</td>
<td>4.7</td>
<td>1.11</td>
</tr>
<tr>
<td>4</td>
<td>41</td>
<td>7.9</td>
<td>497.2</td>
<td>36.3</td>
<td>7.3</td>
<td>5.7</td>
<td>1.14</td>
</tr>
<tr>
<td>5</td>
<td>17</td>
<td>3.3</td>
<td>460.9</td>
<td>29.9</td>
<td>6.5</td>
<td>3.1</td>
<td>0.66</td>
</tr>
<tr>
<td>6</td>
<td>21</td>
<td>4.1</td>
<td>544.1</td>
<td>40.3</td>
<td>7.4</td>
<td>5.2</td>
<td>0.95</td>
</tr>
<tr>
<td>7</td>
<td>13</td>
<td>2.5</td>
<td>352.5</td>
<td>27.0</td>
<td>7.7</td>
<td>2.2</td>
<td>0.63</td>
</tr>
<tr>
<td>8</td>
<td>18</td>
<td>3.5</td>
<td>520.7</td>
<td>38.1</td>
<td>7.3</td>
<td>5.1</td>
<td>0.98</td>
</tr>
<tr>
<td>9</td>
<td>41</td>
<td>7.9</td>
<td>547.7</td>
<td>41.5</td>
<td>7.6</td>
<td>4.0</td>
<td>0.73</td>
</tr>
<tr>
<td>10</td>
<td>35</td>
<td>6.8</td>
<td>466.7</td>
<td>38.5</td>
<td>8.2</td>
<td>4.9</td>
<td>1.05</td>
</tr>
<tr>
<td>11</td>
<td>43</td>
<td>8.3</td>
<td>442.0</td>
<td>30.1</td>
<td>6.8</td>
<td>2.9</td>
<td>0.65</td>
</tr>
<tr>
<td>Midnight</td>
<td>14</td>
<td>2.7</td>
<td>487.6</td>
<td>59.4</td>
<td>12.2</td>
<td>7.2</td>
<td>1.48</td>
</tr>
</tbody>
</table>
4.4.3  Engagement with posts

The mean reach for all posts was 476.3 unique individuals (fans and non-fans). Mean engagement was 35.7 clicks, “likes”, comments, shares, and event responses. Mean engagement/reach was 7.5. Mean talking about this was 4.5 “likes”, comments, shares, and event responses. Mean talking about this/reach was 0.94. Overall, 49 posts (9.7 %) contained content that was deemed humorous or related to pop culture (i.e., contained pictures of celebrities). Posts that contained humor or pop culture content scored highest on the most “active” indicators of engagement (those that did not include clicks as a metric which were talking about this and talking about this/reach). 248 posts (48%) were promoting opportunities to be active on campus. 135 of these were promoting MoveU events and 113 of these were promoting other opportunities to be active on campus including other recreational events, recreational facilities, intramural teams, etc. 30 posts (5.8%) were MoveU event recalls with accompanying photos. These posts had the greatest mean engagement and mean engagement/reach because MoveU often posted multiple pictures to accompany the post, and the engagement metric capture clicks. Thus, clicking on multiple photos drives engagement and engagement/reach up for that particular post. 24 posts were about MoveU events that were not PA related, thus, in total, 189 (36.6%) of posts were about MoveU events (pre-event; post-event; and non-activity related).

4.4.3.1  Engagement with posts that reflect theoretical constructs

Overall, 100 posts (19.3%) contained tips, 40 of those contained actual demonstrations (of a workout, yoga poses, or stretching) and 60 did not. Interestingly, the 60 posts that contained just tips and no actual demonstrations scored higher on all indicators of engagement than posts with demonstrations [n.b. often, tips were also coded as barrier self-efficacy, and posts containing self-efficacy had high engagement, as will be described below]. 121 posts (23.4%) were coded as specifically containing any theoretical constructs related to PA behaviour change (outcome expectancies [n=84]; self-efficacy [n=40]; and self-regulation/goal setting [n=13]). Of these, the posts containing content that reflected barrier self-efficacy scored highest on mean engagement and mean talking about this. Outcome expectancies posts were further broken down, and 31(6%) of these promoted the benefits of PA for academic success, 34 (6.6%) were about the benefits of PA for mental health; 34 (6.6%) were about the benefits of PA for stress relief; 21 (4.1%)
highlighted the benefits of PA for being social; and 9 (1.7%) were about the benefits of PA for other health related issues. Of these, posts reflecting the PA - social relationship (i.e., making friends) had the highest mean engagement and mean engagement/reach, however, posts reflecting the relationship between PA and academic success and PA and mental health scored higher on the more active and robust indicators of engagement (talking about this and talking about this/reach).

4.4.4 Summary: Reach and engagement

Overall, the MoveU Facebook page saw a growth in fans over the eight month tracking period, and successfully reached the target audience of young females. There were less posts that prompted discussion/interaction than what would have been expected from a campaign whose goal was to maximize engagement and develop conversations via the social media platforms. Almost half of the posts for the entire academic year promoted opportunities to be active on the three campuses either through MoveU specific events or through other recreational programs such as intramural’s and drop-in classes. MoveU did deliver content that reflected theoretical variables related to PA behaviour change, of which, posts containing barrier self-efficacy content were the most engaged with.

4.5 Results from phase three: Reception of social media by students

The following section will present more detailed information from the focus groups with the students, in order to capture if any students were aware of MoveU’s social media accounts as well as how they became aware of the social media, and any messages they recalled. Students’ ideas about what they would like to see on a social networking site for PA promotion (such as MoveU’s) will be highlighted.

4.5.1 How students became aware of MoveU social media

In total, about half of the students were clearly aware of, and/or following the MoveU social media accounts (Facebook or Twitter). From the St. George exposed focus group, three out of eight students appeared to be aware of the MoveU social media pages (Zoe, Maxine, and Myrna). From UTM exposed, out of eleven students, most were aware as was recorded through heads nodding. From UTSC exposed, two out of four of the students were aware of or using the
MoveU social media pages (one of them followed it, one was just aware). From St. George not exposed, one person out of five were aware of the MoveU Facebook page, and claimed she had seen it once (Sammy). From UTM not exposed, out of five students, three claimed to follow the social media pages (Ali, Ana, and Ariana), and one claimed to just be aware of it (Luz). From UTSC not exposed, out of seven participants, none were aware of the MoveU social media pages.

There were several ways in which students became aware of the MoveU social media pages. Interestingly, no students recalled becoming aware of the MoveU social media from Facebook advertisements (which is in contrast from the findings from this study showing that most students are reached from paid advertising). The most common way in which students became aware of the social media was through other organizations affiliated with UofT, such as “Spotted at UTM” and the “Healthy Campus Crew”. The other most common way in which students became aware of the MoveU social media pages was through promotions of MoveU at the campus clubs fair, including the giving away of swag like Frisbees and water bottles and through other promotions like postcards. One student also recalled finding out about the MoveU social media through MoveU events, and one student recalled hearing about the social media through one of the campus recreational staff members. Evidently, there are several ways in which students became aware of the MoveU social media accounts, highlighting how social media can be effectively advertised everywhere.

4.5.2 What students recall about messages from social media

Students who were aware of the MoveU social media pages were asked about what kinds of posts and messages they recalled. Posts promoting events were the most frequently recalled types of posts, by students from all campuses and both exposed and unexposed focus groups. For example, Sammy from STGU said, “Umm, I think [I remember seeing] events and stuff. Like, free events.” Khloe from UTME said, “The last thing I can remember is, ‘Come and join all the activities’, promoting let’s say, ‘Come, join the sneaker squad’ or, ‘Come join the Zumba class.’” Two other students remembered receiving event reminders as expressed in the following:

I think just [posts about] attending events, basically…It’s good because they send the event page, like invites, and it’s good because you can say if you’re going or maybe or not going,
so then you get reminders from Facebook that, ‘Oh you have an event from 4-6.’ So you remember it. (Maxine, STGE)

I know for the sneaker squad every week they give you a reminder, because I know it’s twice a week, I think every Sunday night it’s there. So they’re constantly reminding you if you try to forget [laughter]. (Orelia, UTME)

Two students from the same focus group also recalled posts being timely, in the sense that they were in line with what was currently going on in the academic year:

I found that during exam time, there was a lot of “de-stress” because we all knew it was exam time, so I found a lot of the posts were ‘de-stress, come de-stress, 10 ways to de-stress’ [laughter]. [Nina agrees]… It was good timing! Because everyone’s like, ‘Oh my god I’m stressed.’ And it’s a good reminder to people that, you do need to take some time to take care of yourself. (Myrna, STGE)

Two students from exposed focus groups recalled health information related messaging that resonated with them:

I can’t remember if it was MoveU, or if you guys posted an article, or some sort of blog about why girls should do strength straining and about how it won’t make you bulky, but I’m pretty sure it was MoveU and I remember sharing the article, because I was just like, ‘Look, it’s false! We don’t get bulky!’ (Myrna, STGE)

If I’m not mistaken, I do see some nutrition information, like, is that a daily quote thing? Like, ‘Oh if you eat this, if you eat carrots then it’s better for your eyes or something like that.’ I’m not sure… (Khloe, UTME)

Finally, one student recalled hearing about an opportunity to become involved as a health and wellness leader/peer educator through the MoveU social media pages, when she said, “I remember the post about volunteering within PHE” (Alexa, UTME).

4.5.3 Events attended because of social media

Students were asked if they had attended any events as a result of being aware of the MoveU social media pages. Maxine from STGE said, “Yes, the ice skating events.” While Myrna from
STGE said, “That beginning of the year… Girl…MoveU… ‘She’s Got Game’. That was like, really on Facebook. It was good.” Mahalia from UTME also found out about a MoveU specific event through Facebook, “And usually I do seek for events to go to, that’s how I found the MoveU Motivator. I actually didn’t hear it from anyone…I learned about it I think on Facebook, or, on posters, like the stuff that I would look into.” Attending events that have a PA component as a result of becoming aware of them via SNS is indicative of social media leading to the behaviour that is being promoted.

4.5.4 What students want to see in a social media page for PA promotion

Throughout the focus groups, students expressed things that they enjoy seeing on social media health promotion accounts, as well as things that they would like to see on the MoveU social media accounts, both of which have been interpreted as recommendations for the optimal use of social media in PA promotion. The following section will outline several of those findings, as well as highlight some key quotes taken from the focus groups that were chosen as best representing the component that students want to see on a social media for PA promotion page.

Several students from STGU spoke about how they would like to be better prepared before they enter a gym setting, and that this preparation can be done through social media. Students can experience various different negative feelings when first making the choice to start going to a recreational facilities, such as embarrassment about not doing moves properly, shyness about going alone, and generally not knowing what to expect. Social media can utilize videos and other mediums to alleviate these feelings and help students enter the gym setting feeling as comfortable and prepared as possible. One student, Bashair from STGU spoke about wanting to be prepared when she enters the campus recreation facilities when she said:

Or just [post] like an introduction, like, ‘What awaits you when you come to the Hart House [gym]…’ Just to see, ‘Oh, this is where you change, and this is where you do this and that.’ Because for me, that is something that holds me from actually going... I don’t want to go on my own, and if I go it’s just… I feel awkward. You probably don’t want to talk to people, but then you don’t know how it all works. So just something like that, where you know, ‘Okay, this is what I need to do before I go,’ that would really help.
Multiple students from the unexposed focus groups indicated that they enjoy reading motivating posts from social media. Alongside posts being motivating, students from several focus groups mentioned the importance of the posts being visually attractive and even containing celebrities and pop culture references:

I love [motivational quotes] for Twitter, because you’re constantly getting tweets from them on your timeline. I read this one meme, it was like, ‘When you’re on the treadmill, run as if Channing Tatum is in front of you.’ So you’re like, ‘Okay, I guess I have to run a lot!’ So that really motivated me. And I thought it was funny, too. So, the humor and the fitness thing, it made sense. (Kiera, UTSCU)

Or if it had something to do with pop culture, like, oh Brad Pitt is talking about mental health, or running or something. Then people are like, ‘Yea, Brad Pitt runs. I should run!’ (Shayla, STGE)

Students from all three campuses expressed their interest in receiving everyday tips from a health promotion campaign such as MoveU. Some students particularly enjoy receiving tips about how to incorporate little bouts of activity into their regular daily routine:

Oh! There was a picture that I just saved on… I think it was Instagram or Tumblr, and it was really cool, it was easiest ways to exercise. So it was like, do wall sits while you’re brushing your teeth kind of thing. Or, do push ups while you’re waiting for Facebook to load or something. So its like little things that you can do throughout your day, like do jumping jacks while you’re using the microwave…you can do them, even to get a little bit of physical activity. I think posts like that would be really good, like she said, to give tips. (Marcella, UTSCE)

Just as students like receiving tips, particularly about fitness information, many students conveyed that they enjoy receiving fast, quick facts. For example, Yaya from UTMU said, “[I like] Interesting information. Like actual stats that say, oh you know, this percentage… or the increase in your academic performance, is based on this, or its correlated, or something like that.” In agreeing with this, Ana said, “Those ‘did you know?’ facts.” Yaya agreed, “Yea, those are a lot of fun. They’re short and quick and they’re actually interesting.
Students were very interested in knowing more about events that are going on, on campus, and think that advertising events on Facebook could be an effective means of increasing students’ awareness of campus activities and events. For example, Zoe from STGE said, “Yea, maybe introduce an event that’s going to happen, maybe two weeks in advance, and leave that lee-way for a countdown kind of thing, and keep repeating it.” She took ideas from other campaigns at the St. George campus and suggested making events into the Facebook cover photo when she said, “…like if you have an event that’s going on, you could make it as a cover photo on your Facebook. [Some agreeing]… And it doesn’t just have to be from MoveU. All of the peer leaders, or even people who are part of MoveU who want to help advocate…” Students’ interest in learning about events through social media was also reflected in the confusion and disappointment they feel when they learn about events on social media that are not occurring at their campus. One student Marcella, from UTSCE said, “You might get excited that an event’s happening, but then you’re like, ‘Oh wait this event’s downtown, oh wait I can’t make it downtown for that time.’” Another student expressed similar feelings when she said:

I don’t think that’s very good [to have all three campuses on one social media platform]. Just because, I don’t care what people in Scarborough are doing. Because sometimes… that really pisses me off actually! Sometimes you see something you’re really interested in, and then you look, and it’s in Scarborough [someone chimes in: It’s in Scarborough, or UTM]. And you’re like, ‘What the heck!? ’ Because, do you know how long it takes to even get there? (Lauren, STGU)

Although social media platforms like Facebook were seen by some students as a place to promote recreational information and events, some expressed more interest in a static website, so that they could see everything that is going on, at a glance. Students also spoke about how contests and challenges on social media (where applicable/allowed) can be a good way to both increase the reach of the social media pages, and also to get students to engage in PA. Many of the suggestions involved students uploading their own content (i.e., user generated content). All of the students from STGE agreed with Shayla when she talked about the benefits of having contests on social media accounts, in increasing reach and engagement even across campuses:

I know some other departments, for their Twitter pages, sometimes what they do is like a contest, so they’ll be like, ‘Tweet to us how you get active or your daily tips,’ and the winner
gets a prize or something. And the prize usually, people start tweeting it [the prize] and then the account will re-tweet it, so everyone will see, ‘Oh, this person from UTM said they did sneaker squad’ and then it gets that discussion started, or at least that interest.

Another contest related idea that came from the UTSCE focus group involves students creatively responding to MoveU:

…Like a twelve days of Christmas kind of thing just before Christmas. And basically you, in a creative way, you show yourself doing the physical activity that they’ve put out that day for you…But if you take a picture of yourself, you upload you doing it, so you get a bunch of people doing stuff, right, so you get people planking and doing squats, and usually you get the same people doing it every day, with a couple people posting on different days…(Marcella, UTSCE)

The saliency of having a youthful voice and “faces” on these platforms was highlighted in one of the focus groups, when students from STGE mentioned that there could be more active involvement of the MoveU peer leaders on the social media accounts. Another topic and recommendation that came up in several focus groups revolved around wanting to receive nutritional information from health promotion pages and/or MoveU, such as the suggestion highlighted below:

I think part of healthy living should be healthy eating, so if [MoveU] put the little recipes or something that you can involve in your day, like a snack or something, that can help… Or, [MoveU] can suggest good protein bars, or good cereal bars. Because I mean, you can eat something and not really know if it’s good for you. (Orelia, UTME)

Overall, students would like to receive a range of content from social media accounts that are being used for health promotion purposes. The most common types of posts that students would like to see being delivered by the health promotion campaign, in no particular order, include: posts containing celebrities and pop culture content, motivating posts, tips, quick facts, posts promoting events on campus, and contests with prizes that entail the creation of user generated content (by the students).
Chapter 5 Discussion

5 Discussion

5.1 Overview

This is the first study to undertake a three phase mixed methods evaluation in order to understand the use of social media within a PA campaign from the campaign’s inception reception. An explicit focus was on the MoveU campaign at the University of Toronto to explore if a social marketing campaign that aims to promote PA can adopt social media to enhance campaign delivery. The proceeding discussion is presented in the same order as the results, except at times, results from different phases are integrated when they are either complementary or dissonant. In assessing the role of social media in health promotion from the partners’ and students’ perspectives, and in assessing the effectiveness of social media for the MoveU campaign, I have considered how and why young people use social media to help explain the findings. It is also important to understand the contribution of theories and models that have been integrated into this discussion. First, social media is a component of an overall social marketing framework. As such, key tenets to social marketing theory are reflected upon. Next, since this project is exploring the nexus between a behaviour change campaign and a major communication medium, relevant theoretical frameworks in the context of behaviour change and media use and uptake are discussed.

5.1.1 Social media holds potential, but are students actually using it for health purposes?

In order to address the primary research question, partners and students’ perceptions about the role of social media in a PA promotion campaigns were explored. Almost unanimously all partners and students agreed that social media is a useful tool for this purpose. In addition, partners and students agreed on various reasons why it is a useful tool, such as the large volume of people—especially young people—who use SNS. Accordingly, this allows for efficient and rapid dissemination of messages that can reach a broad audience. Previous studies have also pointed out that the enormous popularity of SNS creates the potential for large audience reach, especially reach of a younger audience (Chou, Hunt, Beckjord, Moser, & Hesse, 2009; Hart, Ridley, Taher, Sas, & Dix, 2008). Recent statistics on the use of SNS like Facebook complement...
these findings, boasting over 1.32 billion monthly active users as of June, 2014 (“Facebook Newsroom,” 2014).

About half of the partners also considered social media to be useful for finding a community of people who share similar interests, thereby fostering social support. The applications on Facebook that are most suited for finding communities of people who share similar interests are Facebook groups and pages (i.e., the MoveU page). However, if the people who are joining these pages are just the ones that are interested in the specific topic, then perhaps the people who join/follow pages like MoveU are those who are already interested in activity, and therefore already perform the behaviour being promoted. This potential problem is highlighted by Kang (2008) who mentions that in health communication campaigns, those who are most in need of health information are those who are less likely to acquire knowledge efficiently or quickly compared to their counterparts, even though the knowledge “have-nots” are usually the intended targets of the campaign.

Although most partners and students agreed that social media holds promise for use within health promotion campaigns, it is important to explore if the target audience is actually using these platforms for health information. Some of the students expressed that they would not actively seek health information on SNS, and instead, use other internet resources such as google to find specific information. Similarly, Zhang (2013) examined if and how college students use SNS for health and wellness information. Findings indicated that students do not commonly seek SNS for health related activities, and that SNS such as Facebook were not perceived to be appropriate or trust worthy venues for health related information. Furthermore, Thackeray, Crookston and West (2013) assessed the correlates of health related social media use among young adults. Out of 1745 respondents, only 32% reported using SNS for health (which included getting health information, joining a health related group, following friends’ health experiences, raising money, or increasing awareness about a health related issue). The use of SNS for health was more common among females and younger people, and these findings are not surprising given that these groups are more likely to use SNS in general (Brenner & Smith, 2013; Duggan & Brenner, 2013; Thackeray et al., 2013). These findings indicating a potential lack of interest from youth in using SNS for health and wellness information are concerning given the rapid adoption of SNS by health promoters and public health units (ncchpp, 2015). The largest discordance in opinions between partners and students concerning the usefulness of social media for health
promotion, revolved around engagement and interaction on SNS. This discordance was seen as an overemphasis on the value of social media for stimulating online discussion and conversation from the partners’ perspectives. For example, if a MoveU Facebook moderator posted an article about the benefits of PA for stress reduction, the partners were hoping it would stimulate some kind of discussion amongst the end users (the target audience) in the comment section under the post. However, various students seemed to have negative opinions towards engaging in participatory discussions/conversations on the Facebook page, for reasons such as: students not feeling comfortable interacting on SNS with strangers (i.e., students from other campuses); students not wanting to “invest in” a lengthy discussion; and students needing contests and/or other incentives like free food to respond. When analyzing indicators of engagement that show, on average, a very modest 4.5 “likes”, comments, shares, and event responses per post (talking about this), and the overall lack of dialogic conversation that emerged on the platform, it is clear that students were not contributing to any real lasting dialogue on the Facebook platform. These findings seem to be consistent with the way that youth use SNS. Studies that have examined social networking behaviours of college students in terms of how they socially interact on SNS like Facebook, have suggested that they spend a lot of their time reading and/or viewing information without directly interacting in any way, also known as “lurking” (Antheunis, Valkenburg, & Peter, 2010; Junco 2012a, b; Thackeray et al., 2013). Furthermore, a study that examined students’ behaviours on Facebook groups (which function similar to pages like the MoveU page) reported that although almost all college students were members of Facebook groups, participation in these groups (i.e., talking to people with similar interests or expressing opinions or interests) was rare (Pempek et al., 2009). In the same regard, when students from the current study’s focus groups were explicitly asked about their opinions towards engaging in discussions on social media, some of them talked about how they would either need an incentive to engage (such as a prize, or food) or they would just scroll through posts instead of reading or engaging in a discussion.

The preceding discussion highlights two important ideas. First, it seems that upon initial consideration, everybody believes that SNS are a useful and obvious tool for health promotion, mainly because they are a channel that reaches the audience where they already are. Thus, social media appears to be a suitable “place” for promotion, when using the terminology of the marketing mix used in social marketing. However, some students’ responses complimented
previous literature highlighting a lack of interest in using social media for health information. In light of a uses and gratifications (U&G) perspective (Katz, Blumler, & Gurevich, 1973), if the target audience is not satisfying a need to seek health information, they will not use the platforms for this purpose. Second, the discordance in opinions between the partners and the campaign’s target audience regarding engagement in terms of conversation development teaches us that health promoters must learn from the target audience about their social media behaviours and practices as opposed to prescribing their own views of ideal SNS behaviours and practices onto youth.

5.1.2 Effectiveness of MoveU’s social media according to goals and purposes

5.1.2.1 Increase awareness of MoveU and amount of Facebook fans

Evaluation is a key component of social marketing campaigns, and as such, the second research question asked if the social media component of the MoveU campaign was effective in terms of the goals and purposes for which it was set out for. All of the partners indicated that one of the goals of the social media was to increase awareness of the MoveU campaign. This indicates that SNS may lend themselves to awareness generation within a more complex social marketing strategy. In light of this, SNS can be mapped onto the Hierarchy of Effects (HOE) Model (Cavill & Bauman, 2004; McGuire, 1984) whereby increases in indicators of campaign awareness are indicative of success in exposing the intended audience to the brand and its messaging so that they are aware of it. The amount of awareness of the overall MoveU campaign generated by social media alone could not objectively be determined. However, in accordance with another similar goal stated by most partners which was to increase the amount of “fans” of the MoveU Facebook page over time, the page gained about 1000 new fans over the eight month tracking period. This finding needs to be considered within the context of the University of Toronto’s tri-campus undergraduate population, whereby there are about 67,000 undergraduates, about 14,000 of them being first years and about half of those females. Unfortunately, there is no empirical data that exists on standard rates of increases in fans within this particular context. Thus, although 1000 new fans in one academic year at these three campuses might appear modest, it is difficult to put the rate of fan growth (approximately 3.8 fans per day) in full context.
5.1.2.2 Reaching first year females

The target audience is at the heart of social marketing campaigns. The MoveU Facebook page successfully reached the target audience of young females (84% of all fans were female and 83% of all fans were between 18-24 years of age). This is encouraging in showing that a targeted strategy can be effective in reaching the audience, although these statistics may also reflect the demographics that characterize the most frequent users of SNSs which are females and young people (Duggan & Brenner, 2013). Similar findings came from the “FaceSpace Project,” a sexual health promotion project targeting young people in Australia using SNS, which reported the majority of fans being female (59%) and aged 18-34 years (75%) (Nguyen et al., 2013). Like in MoveU, the FaceSpace Project also used tailored Facebook advertisements in order to increase reach to the target audience, and like in MoveU found that this was the most successful way of increasing reach in terms of “Page Likes” also known as fans (see Figure 4). It is clear that paid Facebook advertisements are one of the primary functions that make Facebook suitable for health promotion campaigns whose goals are to reach a large number of the target audience.

5.1.2.3 Maximize engagement

Partners also indicated maximizing active engagement in the form of conversation and discussion as one of the main goals/purposes of the MoveU Facebook page, which is in line with what they think a main role of social media within health promotion is. As discussed earlier, the engagement piece did not appear to emerge on the Facebook platform. Again, this is likely to be a reflection of young people’s behaviours on SNS whereby young people generally view and passively consume content on SNS instead of actually interacting with it (Antheunis et al. 2010; Junco 2012a, b; Pempek et al., 2009; Thackeray et al., 2013). Another explanation may simply be that people’s online social networks are constantly inundated with so much information and so many posts that perhaps they are not even paying attention to the messages from, for example, MoveU.

Another viable explanation for the low amount of engagement would be that the MoveU social media strategy focused too heavily on pushing information out, instead of encouraging exchange and dialogue, as evidenced by content analysis data indicating only five percent of posts delivered by MoveU prompted interaction/engagement. According to Norman (2013) when social media is being used for health communication, the role of the health promoter is to
provide probes for discussion in order to support conversation. However, in an article about social media engagement and public health communication, Heldman, Schindelar, and Weaver (2013) noted that while social media are designed to be engaging, they are often used as a mechanism by public health organizations for mass information dissemination rather than engaging audiences in a multi-way, interactive conversation. Likewise, the MoveU social media platform did not harness the participatory nature of social media and thus missed out on one of the defining characteristics of social media, which is its potential to facilitate engagement.

Despite the recommendations noted above by Norman (2013) and Heldman et al. (2013), posts that explicitly prompted a response on the MoveU page scored lower than average on all of the indicators of engagement, even when controlling for reach. This indicates that even when prompted, students did not respond. Thus, one further plausible explanation for the limited engagement on the MoveU Facebook platform, which was acknowledged by Bull et al. (2012), is an incomplete understanding of motivations for engagement with content on social media and motivations for sharing material within networks. A lot of research supports that youth use SNS for connection with others that they are already familiar with outside of the SNS, and this supports satisfaction of interpersonal communication (Bolton et al., 2013; Hampton, Goulet, Rainie, & Purcell, 2012; Urista, Dong, & Day, 2009). Thus, the powerful influence of SNS lay in their ability to connect people to those who they already know, and not necessarily to new people (Boyd & Ellison, 2007). If it is the case that social gratifications motivate user behaviour on SNS (i.e., in line with U&G theory), an individual will use the SNS if he or she believes it will help serve his or her objectives to socialize with other people. Since MoveU is not using the Facebook page to foster supportive relationships by harnessing a participants’ already existing social network of friends, it may continue to have underwhelming results in terms of participant engagement and even eventually behaviour change. This may very well be a reason why past interventions that have created “secret” Facebook groups whereby membership is by invitation only, have seen decreases in engagement over time (i.e., attrition and retention) (i.e., Cavallo et al., 2012; Nguyen et al., 2013).

A valuable lesson from the integration of the three data sets (interviews, focus groups, and analytic data) is that health promoters need to be more careful and realistic about how they understand the use of social media for specific target audiences and for specific health issues, by first understanding how their audience uses and values SNS. It is possible that health promoters
are overly ambitious in their hopes of adopting social media into their health promotion strategy just because “everyone” is using social media. It is only through a more holistic understanding of young adults’ social media needs, perceptions, and preferences that SNS like the MoveU Facebook page can be enhanced to meet the target audience’s information needs while simultaneously fulfilling the campaign objectives (i.e., to facilitate active engagement).

5.1.2.4 Which content did students interact with?

One way to gain a better understanding of user engagement with social media in terms of how they engage, and what they engage with, was to observe their actual engagement behaviour on the Facebook platform. In accordance with the second research question which also sought to determine which content drove reach and engagement, a novel content analysis methodology was adopted. Previous studies have conducted content analyses of the prevalence of different types of theories or theoretical variables that are contained in messaging in PA and weight loss interventions that are delivered through SNS (i.e., Turner-McGrievy & Tate, 2013). However, no previous studies have tracked the audience’s interactivity with posts that contain different content. Thus, this was the first study to the author’s knowledge to use a content analysis in order to present Facebook evaluation data that is stratified by post type (e.g., theoretical content, humour/pop culture) as well as post interaction (e.g., engagement, engagement/reach), and thus presents a distinctly novel contribution to the literature both in terms of the methodology and in terms of the results. This content analysis, combined with analytic data on engagement, revealed that posts delivered by MoveU containing humour and/or pop culture scored highest on all four indicators of engagement. This is in accordance with findings from the focus groups whereby students noted that they enjoy humorous posts as well as ones featuring celebrities and pop culture, on SNS. To complement this finding, in recent survey of American females by the Pew Research Center, 43% of females who use Facebook cited the top reason for using Facebook as seeing entertaining or funny posts (Smith, 2014). It is clear through students’ responses and through actual engagement data that the humorous, light and fun approach resonated well with the MoveU’s target audience. Posts that contained workout tips (but not necessarily workout demonstrations) scored high on several indicators of engagement, which is also in accordance with the students’ in the focus groups mentioning that they would like to receive tips about, for example, ways to keep active while doing various normal daily tasks. In these instances, the complementary nature of the focus group data with actual analytic data presents a stronger case
for the importance of delivering these types of posts at a high frequency in order to maximize engagement.

5.1.2.5 The importance of PA event promotion

Six percent of posts shared photos from past events which have been termed “event recall” posts. These posts scored very high on indicators of engagement that included click-throughs, with a relatively impressive average engagement of (the sum of) 70 clicks, likes, shares and comments per post and an average engagement/reach ratio of 13.6. When comparing these two engagement indicators to talking about this (mean: 3.2 likes, shares, and comments), it is clear that it is clicks on these posts that are driving engagement, because clicks are not captured in talking about this. These MoveU event recall posts usually contained a handful of photos from an event, which is likely why they received significantly more clicks. In this case, click-throughs are indicating a level of student interest in seeing what happened at past events. Complementing this analytic data were responses from the focus groups about students’ interest in seeing photos from past events, which they indicated may be a motivating enough to encourage them to go to future ones. Similar results were found in the sexual health promotion FaceSpace project which indicated that one of the most successful ways of increasing audience reach was through tagging photos of young people attending an event related to the Facebook page (Nguyen et al., 2013).

Although MoveU-specific event promotion was not indicated as a key goal/purpose for the use of the SNS within the campaign, 26% of all posts promoted MoveU PA events. A further 22% of posts promoted other campus activities, for a total of 48% of posts that were promoting PA related events on campus. This was encouraging to see, because event promotion via SNS was a theme that came through several times throughout the focus groups, highlighting that SNS are a key resource that allow students to find out about events and activities that are happening on campus. For example, the proportion of event related messages that students recalled compared to other types of messages was an accurate reflection of the amount of posts that were devoted to PA event promotions. In addition, when students were asked about their opinions on there being one MoveU Facebook platform for all three campuses, their responses reflected the importance of Facebook for event promotion. For example, many students expressed the frustration they felt or that they would feel if they read about a recreation event they were interested in, only to find out it is occurring at a different campus.
In line with these findings, Martínez-Alemán and Wartman (2009) contended that the “new campus” includes the online campus. They report that college and university students have found success in using Facebook as a primary method for informing other students about campus activities, and students claimed that Facebook is a better way of communication to advertise events than more traditional means such as word of mouth or flyers, and will thus increase the number of people that will attend (Martínez-Alemán & Wartman, 2009, p.100-101). It is important to use media channels—SNS in this case—to focus on increasing awareness of existing PA supports and opportunities to be active. It has become much clearer through this current study that one of the most profound ways in which social media can be leveraged for health promotion is in disseminating information about activities and events related to the health promotion topic. The MoveU Facebook page is being leveraged adequately for this purpose.

5.1.2.6 Which theoretical content did students interact with?

Previous studies have implemented interventions via Facebook using traditional theoretical concepts. Accordingly, since Facebook can enable the delivery of evidence-based behaviour change techniques, it was of interest to assess students’ interaction with content that reflected different theoretical variables. Overall, 24% of all posts reflected some kind of theoretical content related to behaviour change, and there was some evidence that students did engage with these posts. For example, the posts with content reflecting barrier self-efficacy (e.g., ways to overcome barriers to being active in the winter), scored the highest on the indicators engagement and talking about this. In total, 16% of posts reflected outcome expectancies, such as the value of PA for mental health and stress relief, for social wellbeing, and for academic success. Out of posts that reflected some kind of theoretical content, these outcome expectancy posts (collectively) scored highest on the most robust and active engagement indicator, talking about this/reach. Within the category of outcome expectancies, only six percent of posts reflected the PA - academic relationship. This is surprising given that one of the goals and purposes of the social media component of the MoveU campaign, as indicated by the partners, was to spread the MoveU message about the benefits of PA for that overall university and academic experience.

The content analysis in the current study presents an important novel contribution to the literature in three important ways. First, in terms of methodology, it can serve as a process evaluation to help health promoters determine if they are delivering the appropriate proportion of
different kinds of content, according to their specific strategy. For example, as highlighted above, only six percent of posts were conveying the main message of the campaign, despite this being a main purpose of the overall social media strategy. Second, for health promoters that are attempting to increase audience interaction (i.e., “likes”, comments, shares), content analysis can help health promoters understand what kind of content their specific target audience is most actively engaged with in a natural way, without prompting responses (in interviews or focus groups) about interest in certain types of content. Third, this research methodology offers an important step in a direction whereby theory can be integrated into the delivery of PA promotion and health communication via SNS. Drawing on findings from PA/weight loss interventions delivered via SNS that have incorporated theories of behaviour change, there is some evidence to suggest that targeting theoretical constructs drives significantly more weight loss, compared to control groups where those constructs are not targeted (Napolitano et al., 2012; Valle et al., 2013). Thus, the information learned from a content analysis can be used to inform the future tailoring of theoretically delivered messaging via SNS, in order to develop better health promotion practices. The content analysis methodology can be easily adapted for different social media platforms and different health issues.

5.1.3 Current issues in SNS for health promotion as seen through the lens of MoveU

Findings regarding the content that is most highly engaged with and the type of engagement with that content may reveal insights about what students find most interesting when looking for PA messaging and information. However, the interpretation of these results was limited by the inconsistencies in the overall literature, in defining and operationalizing different levels of engagement and the value of different metrics that capture engagement. Since people engage in different ways on social media, different metrics (i.e., clicks, “likes”, comments, and shares) can indicate different levels of acknowledgement and/or interest and/or agreement for different people. This issue is further exacerbated by the issue of “lurkers” which, as previously mentioned, are all those people who may be reading content and absorbing it, but may not be engaging in a way that can be objectively measured. In addition, different content (i.e., posts with photos versus posts with theoretical or humorous content) may lend themselves to different forms of interaction. For example, clicks may be the most valuable form of interaction for photos and indicate a high level of interest, whereas comments and shares may be the most valuable
indicator of interest for humorous posts. It was only though the unique combination of the different methodologies and phases of evaluation in this project that this could be learned. For example, with analytic data alone, it would not have been clear if clicks on event photos are meaningful, however, focus groups gave meaning and context to these clicks, in that, perhaps students are clicking through these photos because they are interested in knowing who is at events, what is happening at events, and if they should go to future events. While this particular evaluation does attempt to address some of the inadequacies in social media evaluation, the meaning behind different levels of engagement (i.e., interest, approval, etc.) will require further investigation. Going forward, and as a lesson for MoveU, satisfactory levels of engagement as well as which metrics will measure that engagement, have to be defined prior to launching a SNS campaign/intervention, when developing goals for evaluation purposes.

5.1.3.1 Are SNS suitable for all health behaviours?

Throughout the rapid increase of research on the use of SNS within health promotion, one question that has remained unanswered is the suitability of SNS for different health behaviours (Bennet & Glasgow, 2009; Lefebvre & Bornkessel, 2013). Different behaviours are motivated by different antecedents, stimulants, motivators, and theories of change. Furthermore, there are several components of SNS that can be harnessed for health behaviour change, including interactive functions, their ability to foster social support, to disseminate information, and to reach broad audiences. These functions may lend themselves to different health behaviours. For example, SNS may be an effective tool to just push out messages for health behaviours that carry with them more stigma like sexual health topics, where students would want to lurk behind a computer to obtain information. Moreover, for the sake of sexual health promotion, users would presumably prefer a closed group where they can share opinions and feelings with strangers interested in the same cause, that are not shared with their entire social network. This is supported by results from focus groups with young people who indicated that they would prefer to remain anonymous when talking about sexual health issues, and that the threat and risk of bullying, embarrassment and overall stigma would affect the sharing of sexual health information on social media, which goes against the emphasis of “social” in social media (Westly Evers, Albury, Ryron, & Crawford, 2013). It is possible for these reasons that previous intervention studies have shown that SNS can play a positive role in sexual health promotion,
even without facilitating a lot of engagement/interaction from the end-users (Bull et al., 2012; Jones et al., 2012).

On the other hand, with a topic like PA, social media may be a more suitable platform when it is used to maximize interaction with a person’s existing social network, as previous research has indicated social support from friends and family as a consistent correlate of PA behaviour (Bauman, Sallis, Dzewaltowski, & Owen, 2002). Unfortunately, no published studies to date have examined the influence of a person’s existing Facebook network of friends within a PA promotion campaign. However, a current RCT that is underway, the SMART Project, which is a social and mobile weight loss trial for young adults, utilizes Facebook as one of its intervention components designed to deliver theory-based behavioural strategies for diet and PA promotion (Merchant et al., 2014). Facebook is being used as the primary modality for delivering dynamic intervention content that is intended to be shared with the participants’ respective social networks, with the intent being to leverage the value of the participants’ existing Facebook network. This is in contrast to most other weight loss and PA RCT’s that created private groups only for those participants recruited for the RCT. It will be interesting to follow the SMART Project to examine the value of leveraging a participant’s existing social network of friends in a PA context. One study that did highlight the possible advantage of leveraging someone’s existing social network via an independent social networking platform (not Facebook), did show promising results (Foster, Linehan, Kirman, Lawson, & James, 2010). In this study, they recruited participants who already knew each other in a workplace setting and created a friendly competitive environment. Perhaps the approach by Foster et al. (2010) was more in line with Maher’s (2014) recommendation that innovative approaches reflecting the way people use online social networks (with existing friends) are warranted. Taken together, it is important to separate different health behaviours from one another within the context of applying SNS to health behaviour change.

5.1.4 Critical reflections on behaviour change theory and social marketing

Theoretical frameworks helped structure the interpretation of results for this particular research project. SNS like Facebook can be an effective tool in increasing target audience awareness of the brand, because tailored strategies in the form of advertisements can be used to reach the target audience. The ability to use SNS to reach a target audience was seen in the results from
this present study. It is thus possible to imagine how a social media strategy, when used in social marketing campaigns, can be mapped onto the HOE (Bauman et al., 2008; Cavill & Bauman, 2004; McGuire, 1984). It remains unclear if SNS can play a role in influencing more intermediate variables related to behaviour change within the HOE (i.e., self-efficacy, outcome expectancies), however, those variables can be targeted via posts, as seen in this study’s content analysis. It is also premature to be able to conclude that social media can lead to behaviour change, however, there were some instances highlighted in the focus groups, where students attended MoveU PA events as a result of learning about them through MoveU’s Facebook page. One weakness that has been highlighted in media campaigns is that their emphasis on campaign awareness can lead to failed attempts to actually change behaviour (Rhodes et al., 2013). Thus, a critique of the use of social media in health promotion may be that it provides a very individual level approach to targeting behaviour change, instead of a broader, more holistic one that targets multiple levels of influence. As seen in the MoveU campaign, social media can be fit within this broader multi-level approach. The MoveU campaign does target multiple levels of influence from social norms, to environmental changes (i.e., how many free drop in classes are offered at recreational facilities), to policies at the university (i.e., women’s only hours at the gym). When utilizing social media within a health promotion campaign, resources and environmental level changes need to be made concurrently as “awareness” generating component of the campaign is underway, and social media provides a channel to make those resources and opportunities known.

Furthermore, although the efforts of social marketing campaigns and health promoters are seen as positive, at their very core is marketing which has its roots in advertising. Social marketing campaigns reinforce health practices that have been normalized in our westernized culture. These health practices end up reproducing “healthism” which “situates the problem of health and disease at the level of the individual, and so operates to promote neoliberal ideologies that obscure the impact of government and structural contributions to health disparities” (Dworkin & Wachs, 2009, p.11). This can marginalize certain groups by failing to give attention to broader social-cultural contexts which may act as deterrents to opportunities to be active (Rich, Evans, & De Pian, 2011). In the case of MoveU, although the campaign was specifically designed to reach people who are underrepresented in the PA world (namely, females), there may be underlying reasons why women are underrepresented, which are not being addressed in a social marketing
campaign aimed at increasing awareness of the benefits of PA for the university experience and beyond. Campaigns like MoveU may not actually be challenging the root of the problem, because the health ideals that MoveU is promoting (i.e., of the association between exercise, less stress and academic success) may not account for the lower levels of PA amongst underrepresented populations such as women. Instead, the root of the issue may be accounted for by the complex interplay of factors that were highlighted in the literature review such as socialization into sport and PA, differences in availability of sporting options from a young age, and the impact of a highly ubiquitous media. In sum, since campaigns like MoveU are based on collective research from the target audience, as well as westernized biomedical ideals of health and the healthy lifestyle, they can end up “homogenizing young people’s diverse interests, needs and opportunities across ethnicity, class, age, culture, and ability” (Rich, Evans & De Pian, 2011, p.139).

In the case of MoveU and the social media, it is important that health promoters are cognizant of these broader issues, so as to not reproduce societal ideals. An area of further research would be to conduct a discourse analysis of the messaging (words and images posted by MoveU) in order to understand how PA is framed in this campaign and to consider the effect of that framing on the target audiences’ behaviour, opinions, and practices. This can follow a similar methodology as that of Kennedy and Pappa (2008) in their study examining the ways that fitness oriented women’s magazines discursively construct PA for women. We still know very little about how young women are reading and experiencing these PA behaviour change discourses via social media on pages like MoveU, and this is an important area for future research.

Taking everything into account, my findings suggest that social media and SNS cannot be standalone intervention platforms to change PA. Rather, as seen through this comprehensive evaluation, social media has a role to play in an overall social marketing strategy aimed at influencing behaviours. The ability to use SNS to promote a PA brand (MoveU) and its messaging while simultaneously promoting existing opportunities to perform the behaviour, makes them a valuable tool that can enhance the work of health promoters.

5.2 Future directions & recommendations

One of the goals of this thesis was to be able to make recommendations for and inform the MoveU social media strategy. In the future, those involved in implementing the social media
strategy must determine how social media engagement principles can best support the organizations’ overall objectives—that is, they need to have clear goals for the use of the social media platforms and which indicators best measure those goals. For example, if the goal is to use Facebook to promote MoveU events and have 50% of attendees at events to have become aware of the event via social media, this is a measurable goal that can be tracked through surveys at events. Future campaigns should place more emphasis on leveraging social media for this high level of engagement in the form of participation in the campaign offline, and tracking it.

Campaign creators and evaluators can get creative and explore what kinds of photos from events attract the most engagement, can tag participants in photos (if they have permission to) and use photos from events to encourage more students to attend next ones. Moreover, MoveU must better embrace the social nature of social media and fully harness the interactive, collaborative components of social media. In order to do so, those coordinating the social media should ensure that the target audience interacts and collaborates as content creators, rather than remains as consumers of a single way flow of information that is just delivered to them. Strategies that are stronger at harnessing the interactive features of SNS are recommended, such as through more competitions, encouragement of user generated content, and incentives/prizes. Additionally, as addressed earlier, an area of future research would be to conduct a discourse analysis of the messaging from a campaign like MoveU in order to understand how PA is framed on social media channels and its effects on the target audience.

Future evaluations should assess how many people became aware of MoveU through social media, for example, through surveys, because SNS like Facebook may lend themselves more to the first stage of social marketing strategies which is increasing awareness. Furthermore, studies like this present one should continue to uncover the most relevant feature uses (i.e., photos, videos, event invitations, polls) and post types (i.e., messages with conceptual theory underpinning them) in order to identify successful components, build on this literature, and continue to inform the development of better campaigns and interventions.

Finally, when studying the use of social media for health promotion, two broad theoretical perspectives should always be taken into account: theories underpinning uses of new media have to be considered, as well as behaviour change theories that can be applied to the health behaviour. In particular, future studies should continue to expand on the application of U&G in the study of social media for health and PA promotion. It is highly relevant to continue to
identify motivating factors for engagement because the audience becomes the “gatekeepers and filters of information” (Baek et al., 2011), and so attention to these engagements can improve health promotion via social media. Findings from studies that combine both behaviour change theory and media use theories can help understand how to maximize participant engagement on SNS. It will be further useful to examine how these theories can intersect.

5.3 Limitations

This study is very unique and novel in its methodology. For example, the process that was undertaken to determine themes and codes for the content analysis was challenging in that to date, there are no guidelines to follow in conducting content analyses of posts to social media aside from posts reflecting different types of social support. With the various media that can be integrated into each post (i.e., photos, memes, videos, links to blogs and articles), coding presented as a challenge. The themes were created after a few weeks of the researcher becoming familiar with the types of posts that were being delivered by MoveU, and were largely based on the researcher’s prior knowledge of behaviour change theory and its associated constructs.

Another limitation for the content analysis and its associated engagement metrics is that Facebook Insights data are limited for open pages such as MoveU. This is because anybody who goes on the MoveU page are included in Insights’ capture, which contaminates analyses because non-followers of the page may be responsible for some of the page interactions (thus, it is hard to verify if all of the engagement is coming from the target audience who are the main fans of the page). Also, Facebook Insights’ data can have questionable internal validity. For example, Facebook Insights’ data defines reach as the message being visible on one’s personal page (news feed) despite the fact that there is no evidence that the individual has attended to this information (Merchant et al., 2014). Furthermore, the objective measures of engagement with posts are unable to account for those who passively read and consume information.

Determining themes from the interviews and focus groups was influenced by the researcher’s prior knowledge concerning the uses and benefits of social media and SNS in health promotion. Therefore, the researcher’s preconceived notions of its usefulness as well as her biases regarding the value of PA may have influenced her coding and her determination of themes, as was mentioned in the methodology sections of this paper. For example, after an interview, interesting things from the interview would be reflected on. This process reflects the researcher’s own
biases, as it is possible that perhaps the pieces that were reflected on/recalled were those that the researcher expected to/wanted to hear, and this may have been affected by the previous literature that was read (i.e., regarding engagement).

Next, there may have been biases that existed in recruitment for the focus groups. For example, multiple channels of recruitment had to be utilized and this involved the MoveU partners from all three campuses pushing out invitations to join the focus groups via their various connections and channels. The researcher did not have control over who the e-mails were sent to, only control over what the e-mail said. Thus, it is possible that students with a particular connection to the partners were the ones who wanted to participate in the focus groups. Furthermore, the intent was to recruit “exposed” students from MoveU event tracking sheets from all campuses, however, some campuses only tracked attendance at a few events, and therefore the “exposed” students may have only been from a handful of events and did not represent the range of students who attended different events. This could have affected the amount of students who had heard about differing events through social media. Extending this idea even further, it is possible that some students joined the focus groups in an attempt to become involved in MoveU, as it is an attractive campaign to become involved in during undergraduate years. Anecdotally, at the end of the focus group, a few students did ask me how they could get involved in the campaign, indicating a bias towards attracting students who are keen to get involved in school events, and thus perhaps not a representative sample of all female undergraduates.

The timing of partner interviews may also be a methodological limitation to this research because they were conducted one year after the MoveU campaign was launched, so responses (i.e., regarding goals and objectives) were not from the outset of the campaign, rather, they were influenced by one academic year’s worth of partners being involved in the campaign. So, when the partners said things about what they were hoping would happen, such as “I was hoping there would be more of a youth voice”, or “I was hoping for more engagement”, that was influenced by what they actually saw, and perhaps was not what they thought a goal was from the outset. Furthermore, as was acknowledged in the self-reflection section, there may have been self-presentation biases on behalf of the partners as well as the students in the focus groups. The partners in particular may not have been comfortable being interviewed by myself, as a member of the MoveU evaluation team. As noted previously, both the partner interviews and the student focus groups were part of a broader study evaluating the MoveU campaign. Thus, some of the
responses about social media were made while answering broader MoveU evaluation questions. This is a limitation because while I was interested in seeking out responses about the usefulness of social media in health and PA promotion in more general terms, partners tended to respond to it in terms of its usefulness to MoveU specifically.

Although the lack of students who were actually engaged with the MoveU social media platform was interpreted as a strength in that they still provided relevant information that complimented the Facebook analytic data, this was also a weakness. Going into this evaluation, when creating research questions and focus group guides, it was my intention to gain information about “reception” of the MoveU Facebook page and its content. Reception is concerned with how the intended audience engages with the social media, and interprets the intervention messaging (Finlay & Faulkner, 2005). Thus, it would have been ideal to have had explored the types of messages that resonated with students, and perhaps tie that to theoretical constructs. Unfortunately, because of the lack of students who were aware of, and engaged with, the social media platform, this type of analysis was not made possible, and so inferences about what students found most interesting and resonating could only be inferred from the content analysis and associated engagement metrics, and not from the students themselves.

5.4 Conclusion

Social networking sites, particularly the most popular ones like Facebook, at first glance, appear to be a salient setting for health promotion that are only just starting to be understood more completely. The overarching goal of this thesis was to assess the role of a famous social networking site (Facebook) in enhancing a PA promotion social marketing campaign targeting first year undergraduate students. By using a novel mixed methods approach, the three separate sources of data were considered together in terms of similarities and differences in findings, and thus captured a more comprehensive understanding of the usefulness of social media within PA behaviour change campaigns. The MoveU health promoters wanted to exploit the potential of Facebook to reach large numbers of students, as seen through one of the main goals of increasing the amount of Page “Likes” (fans), which was achieved. However, there was a disconnect in the health promoters’ and target audiences’ views towards active engagement, which was also borne out in the actual usage statistics. The MoveU Facebook fell short in terms of engaging the audience in measurable ways, and the focus group data allowed for a deeper understanding of
why students may not be engaging with content at a high frequency which included reasons such as: students not feeling comfortable interacting on SNS with students from other campuses; students not generally seeking health information on social media; students not wanting to "invest in" lengthy discussions; and students needing other incentives like free food, to respond.

This study not only advances the study of SNS in PA promotion, providing novel avenues for the measurement of social media use (i.e., through the unique content analysis methodology adopted here), but the findings of this study offer new insights into the importance of the application of behaviour change theories as well as information seeking theories, in the study of social media for health promotion. Future PA campaigns or interventions that leverage SNS should stay true to the “social” purposes of SNS and exploit the true the ability of these SNS to allow real networks of friends to interact. This project extended the literature on the uses of social media in health promotion in several ways, for example by highlighting the utility of Facebook to promote events and activities that are in line with the campaign messaging. However, it is unknown whether lessons learned from this study can be generalized on a larger scale to different health issues and to various different population subgroups. Although health promoters need to be realistic about the role that social media can play in enhancing behaviour change campaigns that promote PA, as seen through the lens of the MoveU campaign, social media can enhance the delivery of an overall social marketing PA promotion strategy.
References


Bauman, A.E. (2004). Commentary on the VERB campaign — Perspectives on social marketing


Gold, J., Pedrana, A.E., Sacks-Davis, R., Hellard, M.E., Chang, S., Howard, S.,…. Stoove,


Hughes, A. (2010). Using social media platforms to amplify public health messages: An


Menon, V. (2013, January 16). Tweet yourself thin? New research suggests Twitter can help


MoveU: Partnering to increase active healthy living among students. (2013). Campaign information sheet retrieved from a MoveU meeting.


adulthood and college-aged youth: An overlooked age for weight-related behavior change. *Obesity, 16*, 2205-2221. doi: 10.1038/oby.2008.365


Appendices

Appendix A: Content analysis coding scheme

Table 6.

<table>
<thead>
<tr>
<th>Code</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunities to be active –</td>
<td>It's that time again...NTC Tuesday! Push yourself with a 45-minute,</td>
</tr>
<tr>
<td>campus (OTBA-C)</td>
<td>interval-based workout inspired by Nike athletes, in a Nike Training</td>
</tr>
<tr>
<td></td>
<td>Club drop-in class. Grab a friend, grab a towel and get ready to</td>
</tr>
<tr>
<td></td>
<td>sweat! Classes happen every Tuesday from 1:10pm to 1:55pm in the</td>
</tr>
<tr>
<td></td>
<td>Athletic Centre field house.</td>
</tr>
</tbody>
</table>
Opportunities to be active – MoveU event (OTBA-M)

Want to learn how to skate for free?
Come out to Scary Skate tomorrow night!
There will be free refreshments, free skating instruction and free skate rentals available.

https://www.facebook.com/events/1374498072788933/

Scary Skate
Thursday, October 31, 2013 at 9:30pm in EDT
Varsity Centre
21 people went

Like · Comment · Share
<table>
<thead>
<tr>
<th>Code</th>
<th>Example</th>
</tr>
</thead>
</table>
| **MoveU event (Non-PA)** | ![Move U of T](image)  
**Hey UTM Sneaker Squad!**  
Tomorrow Wednesday January 29 from 4 p.m. to 5 p.m. is "Warm-ups, Cool-downs and Stretches for Walkers and Runners," our first of three education sessions. Come on out to the High Performance Centre in the RAWC to have your questions answered by a RAWC Personal Trainer and meet other walkers and runners.
We'll see you there! |
| **MoveU event recall** | Thank you for everyone who came out today for our free yoga session at the IC atrium and played badminton with us too! GOODLUCK YOUR EXAMS UTSC! |
| **Other campus event** | Interested in the LGBTQ Day of Movement and Sports? Attend the Student Planning Meeting this Tuesday October 22nd (tomorrow)! Students will be able to share ideas surrounding positive space, brainstorm activities, and explore outreach ideas. The event is open to all University of Toronto Students! |
Welcome to a new year UTM!

Not only does regular physical activity produce healthy habits, but it's also a great way to meet new friends.
<table>
<thead>
<tr>
<th>Code</th>
<th>Example</th>
</tr>
</thead>
</table>
| Tip (Workout) – without demonstration | **Move U of T**  
**February 10 · 0**  
*If you exercise outdoors during the winter, check out these tips for you:*  
| Tip (Workout) – with demonstration | **Move U of T**  
**October 20, 2013 · Toronto · 0**  
*Try the following yoga poses before you sleep!*
www.huffingtonpost.com/2013/06/30/yoga-for-sleep_n_3505226.html |

**10 Of The Best Yoga Poses For Sleep (PHOTOS)**  
Sleep deprivation and stress can be a vicious cycle. We often have trouble falling asleep because we’re worried and anxious, and in turn, the fact that we didn’t get enough sleep makes us stressed the next day.  
[HUFFINGTONPOST.COM](http://huffingtonpost.com)  
**BY CAROLYN GREGOIRE**
<table>
<thead>
<tr>
<th>Code</th>
<th>Example</th>
</tr>
</thead>
</table>
| Self regulation/goal setting | **Move U of T**  
September 1, 2013 -  
Have you been keeping up with your summer ‘get fit’ plans?  
![Image](https://via.placeholder.com/150)  
See more fitness inspiration @ www.inspirermyworkout.com | ![Image](https://via.placeholder.com/150)  
Like · Comment · Share |
| Workout demonstration and outcome expectancies (PA-Stress) | **Move U of T**  
February 1 -  
Stressing out about midterms already? Try to do yoga to release you stress! Check out this 20-minute routine that you can do at home:  
http://www.youtube.com/watch?v=9a9kNeOyh98  
![Image](https://via.placeholder.com/150)  
Yoga for Complete Beginners - Yoga Class 20 Minutes  
Yoga for complete beginners, 20 minute gentle yoga class to give you greater relaxation, more energy and joy. Relaxation pose and crocodile poses to relax th...  
YOUTUBE.COM  
Like · Comment · Share |
<table>
<thead>
<tr>
<th>Code</th>
<th>Example</th>
</tr>
</thead>
</table>
| Self-efficacy (Barrier)                   | **Move U of T**  
Time, Money, Family Responsibilities keeping you from getting active?  
Health and Lifestyle coach Dione Mason (and instructor of Hart House’s Zoomer Fit drop-in class!) shares words of wisdom and tips for finding time to get active.  
---  
**The 3 Most Common Excuses That Prevent You From Working Out**  
Now that the New Year is here, most of us intend to get fitter and healthier, but with today’s hectic schedules, chances are good that many will fail. Luckily, there’s a simple way to succeed: listen...  
HARThOUSEUOFT.TUMBLR.COM                                                                 |
| Self-efficacy (Vicarious experiences)     | Our MoveU blogger [name] conquered her fear of exercising in public and headed to the gym! Was it as bad as she thought it would be? Find out in this week’s post: |
Appendix B: Recruitment (e-mails and social media)

B.1 E-mail invitation for MoveU partners

Dear <first name>,

We would like to invite you to participate in an interview about MoveU. As a MoveU Partner, we are interested in hearing about your experiences with the campaign.

The purpose of this study is to evaluate the structure, promotional strategies, events and participant experiences with the MoveU campaign. Your thoughts and opinions are valuable and will help us to improve the campaign for next year.

Please have a look at the attached study information and consent form. If you wish to participate, please reply to this e-mail.

Looking forward to hearing from you,

Alicia

B.2 E-mail invitation for students exposed to MoveU events

Dear <first name>,

We would like to invite you to participate in a focus group about MoveU. As a student who attended at least one MoveU event, we are interested in hearing about your experiences with the campaign.

The purpose of this study is to evaluate the structure, promotional strategies, and events related to the MoveU campaign. Your thoughts and opinions are valuable and will help us to improve the campaign for next year.

All participants will receive a $20 Starbucks gift card and be entered in a draw to win a yoga bag! Snacks and refreshments will also be provided.

Please have a look at the attached study information and consent form. If you wish to participate, please reply to this e-mail.

Looking forward to hearing from you,

Alicia
B.3 E-mail invitation for students not exposed to MoveU events

Hi UofT Students,

We are inviting first and second year female students who did not attend any MoveU events, or who are not aware of the MoveU campaign, to participate in a short study for U of T. As a student at the University of Toronto, your thoughts and opinions are valuable and will help improve our MOVEU campaign for next year.

If you wish to participate in the focus group on [insert date and time], please reply to Alicia at alicia.luciani@mail.utoronto.ca with the subject "MoveU St. George" and more details about the study will be provided.

All participants will receive a $20 Starbucks gift card and be entered in a draw to win a yoga bag! Snacks and refreshments will be provided.

Looking forward to hearing from you,

Alicia

B.4 E-mail invitation on MoveU social media

Hello UofT student!

We would like to invite any first year females who have been following any of our MoveU social media accounts to participate in a study entitled, MoveU: Process Evaluation of the MoveU Crew’s Initiative, at the St. George campus. We would value your participation because we are interested in learning about first-hand experiences from students who are aware of the MoveU campaign.

The information you provide will help us in improving the campaign in years to come. If you are interested in participating, please reply to this message in our Facebook/Twitter Inbox, and we will send you more information!

Thank you and we look forward to hearing from you,

Alicia
Appendix C: Consent forms

C.1 Partner consent form

Letter of Information and Consent

MoveU: Process Evaluation of the MoveU Crew’s Initiative

Dear MoveU Partner,

In Fall 2012, the MoveU campaign was launched at all three University of Toronto campuses in partnership with ParticipACTION, the national voice of physical activity and sport participation. Funded by the Trillium Foundation, MoveU was created to help university students identify opportunities and find motivation to engage in physical activity. The MoveU campaign is now reaching the end of its first year of implementation at the University of Toronto, and Dr. Guy Faulkner in the Faculty of Kinesiology & Physical Education is leading an evaluation of the campaign. As a MoveU Partner, you are invited to take part in an interview about MoveU.

What is the purpose of this study?
The purpose of this study is to evaluate the structure, promotional strategies, events and participant experiences with the MoveU campaign. We are inviting MoveU Partners and peer leaders involved in planning events, students who have taken part in events, as well as those who have not taken part in events to share their thoughts with us.

What will I be asked to do in this study?
In this study, you will be asked to participate in an interview that will take approximately 45 minutes to complete. To express your interest, you are asked to email the Research Coordinator (subha.ramanathan@utoronto.ca) and indicate a selection of suitable dates and times for the interview. If you decide to participate, you are asked to keep this information sheet and will be asked to provide verbal consent to participate at the beginning of the interview.

Do I have to take part?
Participation is voluntary. It is up to you to decide whether or not to be a part of this study. If you choose to participate, you may decline to answer any of the questions and you are also free to withdraw from the study at any time without giving a reason. Thoughts shared will be confidential and reported in general terms without reference to any particular person. You will not be identified in any presentations or publications relating to the research. If you wish to withdraw from the study once the interview has started, any information that you share will not be included in the analysis.

What are the risks and benefits of my involvement?
There is little risk to taking part in this study. You will not be asked any questions that are intrusive or sensitive. You may decline to answer any questions you wish without any negative consequences.

In terms of the benefits of this study, your involvement will help to improve the MoveU campaign and promote active healthy lifestyles among undergraduate students at all three University of Toronto campuses. Moreover, as the campaign is set to expand to other institutions in Fall 2013, including Sheridan College, feedback from MoveU Partners will help to strengthen the delivery and implementation of the program for a broad base of Canadian students.

What will happen to the information I share in an interview?
All interviews will be digitally recorded and transcribed for analysis. Digital recordings and electronic transcripts will be stored on a password-protected and secure server only accessible to the research staff directly involved with this project. We will protect your privacy and confidentiality by using pseudonyms in the transcripts and when reporting the results in scholarly publications and presentations. Any paper
copies of the research materials (e.g., printed transcripts) will be stored in a locked filing cabinet in a locked office in the Faculty of Kinesiology & Physical Education at the University of Toronto. All electronic files and paper copies will be destroyed seven years after the conclusion of this study. You may receive a summary of the study results by contacting the study coordinator, Dr. Subha Ramanathan (subha.ramanathan@utoronto.ca). If you have any questions about your rights as a research participant, please contact the Office of Research Ethics at ethics.review@utoronto.ca or 416-946-3273.

Thank you for considering taking part in our study. We look forward to hearing your perspectives.

Sincerely,

Dr. Guy Faulkner
Principal Investigator
Faculty of Kinesiology & Physical Education
University of Toronto
Phone: 416-946-7949
E-mail: guy.faulkner@utoronto.ca

Dr. Subha Ramanathan
Research Coordinator
Faculty of Kinesiology & Physical Education
C.2 Focus group consent form (exposed and not exposed)

Letter of Information and Consent

MoveU: Process Evaluation of the MoveU Crew’s Initiative

Dear Student,

In Fall 2012, the MoveU campaign was launched at all three University of Toronto campuses in partnership with ParticipACTION, the national voice of physical activity and sport participation. Funded by the Trillium Foundation, MoveU was created to help university students identify opportunities and find motivation to engage in physical activity. The MoveU campaign is now reaching the end of its first year of implementation at the University of Toronto, and Dr. Guy Faulkner in the Faculty of Kinesiology & Physical Education is leading an evaluation of the campaign. As an undergraduate student at the University of Toronto’s St. George campus, you are invited to take part in a focus group about MoveU.

What is the purpose of this study?
The purpose of this study is to evaluate the structure, promotional strategies, events and participant experiences with the MoveU campaign. We are inviting students who have taken part in events, as well as those who have not taken part in events to share their thoughts with us.

What will I be asked to do in this study?
In this study, you will be asked to participate in a focus group with 4 to 8 of your peers. Focus groups for those involved in planning events and students who have attended events will take approximately 90 minutes to complete. Focus groups for students who have not taken part in events will take approximately 45 minutes. You will also be asked to fill out a brief questionnaire that will help us to describe who has taken part in this study (e.g., year of study, program).

Do I have to take part?
Participation is voluntary. It is up to you to decide whether or not to be a part of this study. If you choose to participate, you may decline to answer any of the questions and you are also free to withdraw from the study at any time without giving a reason. Thoughts shared in focus groups will be confidential and reported in general terms without reference to any particular person. You will not be identified in any presentations or publications relating to the research. It is also important to note that discussions and ideas cannot be separated, and will reflect the opinions of the group as a whole. Therefore, if you wish to withdraw from the study once the focus group has started, any input prior to your withdrawal will be included in the analysis.

What are the risks and benefits of my involvement?
There is little risk to taking part in this study. You will not be asked any questions that are intrusive or sensitive. However, discussing a health and physical activity program may raise concerns for some people about their own health or activity levels. Furthermore, because of the nature of focus group discussions, you will be asked to share your thoughts with your peers, which may make you feel shy or embarrassed. To minimize these risks, a focus group moderator will lead the discussion and ensure that a respectful and open atmosphere is maintained. The moderator will explain that there are no right or wrong answers, and all perspectives are welcomed. In addition, when sharing information about the discussions outside of the focus group (e.g., with friends), all participants will be requested to talk in general terms without reference to any particular person.

In terms of the benefits of this study, your involvement will help to improve the MoveU campaign and promote active healthy lifestyles among undergraduate students at all three University of Toronto campuses. Moreover, as the campaign is set to expand to other institutions in Fall 2013, including Sheridan College, feedback from the focus groups will help to strengthen the delivery and implementation
of MoveU for a broad base of Canadian students. To thank you for your participation, you will receive a $10 gift card to Starbucks.

**What will happen to the information I share in the focus group?**
All focus groups will be digitally recorded and transcribed for analysis. Digital recordings and electronic transcripts will be stored on a password-protected and secure server only accessible to the research staff directly involved with this project. We will protect your privacy and confidentiality by using pseudonyms in the transcripts and when reporting the results in scholarly publications and presentations. Any paper copies of the research materials (e.g., consent forms, written questionnaire, printed transcripts) will be stored in a locked filing cabinet in a locked office in the Faculty of Kinesiology & Physical Education at the University of Toronto. All electronic files and paper copies will be destroyed seven years after the conclusion of this study. You may receive a summary of the study results by indicating your interest at the bottom of the consent form or contacting the study coordinator, Dr. Subha Ramanathan (subha.ramanathan@utoronto.ca). If you have any questions about your rights as a research participant, please contact the Office of Research Ethics at ethics.review@utoronto.ca or 416-946-3273.

Thank you for considering taking part in our study. We look forward to hearing your perspectives.

Sincerely,

Dr. Guy Faulkner  
Principal Investigator  
Faculty of Kinesiology & Physical Education  
University of Toronto  
Phone: 416-946-7949  
E-mail: guy.faulkner@utoronto.ca

Dr. Subha Ramanathan  
Research Coordinator  
Faculty of Kinesiology & Physical Education

--------------------------------------------------  Detach and Return Signed  --------------------------------------------------

**I consent to participate in a digitally recorded focus group for the study entitled “MoveU: Process Evaluation of the MoveU Crew’s Initiative” as described in the letter of information.**

Printed Name: ______________________       Signature:  ______________________

Date: _________________________________________

Do you wish to receive an electronic summary of the results by email once the study is complete?

Yes please!       Email address: _____________________________  No, thank you.
Appendix D: Demographic questionnaire (focus groups)

1. What is your current year of study? 1  2  3  4  5
2. What program are you in? ____________________________
3. Are you male or female? Male  Female
4. How old are you? _________ years
5. Where do you live?
   UofT Residence  Off-campus with or without housemates  With family
Appendix E: Interview guides

E.1 Interview guide for MoveU partners

(~ 45 minute interview)

General impressions of the campaign and awareness among students (10 mins)

As an integral part of the MoveU campaign, we would like to learn more about your impressions of the campaign and some of its elements.

- From your perspective, what were the main goals or objectives of MoveU?
  - What areas or topics did the campaign focus on?
    - How effectively did MoveU tackle these areas?

d. What were some of the key strategies used to raise awareness about the MoveU campaign? (e.g., brand recognition – bright colours)
  - How effective were these strategies?

- How widespread was the campaign on the three campuses?
  - Do you think that students were aware of MoveU on all three campuses?
  - Where were students most likely to learn about or be exposed to MoveU at your site?
  - Where were students least likely to learn about or be exposed to MoveU at your site?

Promotion, Events, & Experiences (15 mins)

Peer Leaders were hired to deliver programming at each campus. We have a few questions for you about the MoveU Crew in terms of their training and student engagement.

- What role do you think that the Peer Leaders played in raising awareness about MoveU?

- What kinds of training did the MoveU Peer Leaders receive in terms of the nature and number of topics covered?
  - How often did these training sessions run?
  - Are there any other areas that you think should be covered in the training sessions next year?

5. Now in terms of delivering MoveU programming, what were some of the key strategies that Peer Leaders used to engage first year students?
  - Which strategies do you think were the most effective?
o Which strategies (if any) were least effective?

o Do you have any suggestions for other ways that Peer Leaders may engage with students next year?

• What was the most successful event at your campus? Why?

  o When you were thinking about the most successful event, what aspects of the event came to mind? (e.g., high attendance? High-impact of the event? Lots of interactions between students who took part? High levels of enthusiasm?)

• What was the least successful event? Why?

  o When you were thinking about the least successful event, what aspects of the event came in mind? (e.g., lack of attendance? Low-impact of the event? Few interactions between students who took part? Low levels of enthusiasm?)

• Moving forward, what are some of the key opportunities and challenges that MoveU has presented?

• Overall, do you think it is important to have a campaign like MoveU at the University of Toronto?

Social Media (20 mins)

[Research Question: How is social media understood by the MoveU Partners in terms of a) how it works, and, b) how it can be operationalized to promote healthy active living c) challenges and strength of the approach used for MoveU, and d) recommendations for improvement in MoveU?]

In this last section of the interview, I would like to open up a discussion about social media. Social networking tools like Facebook and Twitter are starting to be used as platforms to deliver health promotion interventions, like MoveU. So, we wanted to know what you thought about them.

1. General Understanding of social media for health promotion. How do you think social media fits into health promotion?

   a. What are some of the advantages of using social media for health promotion interventions?

      a. How does social media compare to a website?

   b. What are the core components of a social media strategy in a health promotion intervention? (e.g., interactivity: 2-way engagement; sharing within networks; social support)

Now we’d like to hear about how social media was used within the MoveU campaign.

2. How it was supposed to be used. The social media strategy was one of the main components of the campaign. What sparked the idea of using social media for MoveU?

   a. How were Facebook and Twitter chosen for the social media strategy?
a. Do you feel that multiple social media platforms were needed?

b. What do you think were the general impressions among MoveU Partners for the use of social media?

c. What were the goals/purposes
   a. Were specific objectives identified? Were they clear?
      (i.e., engage a certain percentage of the first year students as followers/friends?; platform to disseminate health information?; trying to change behavior?; increase awareness of the campaign?; increase feelings of social support between students)
   
   b. As a MoveU Partner, how were you hoping that students would engage with the SM pages? (e.g., source of info/motivation? Interact with it? Share experiences?)

d. How did the team decide what content would be posted? (text, images, videos)
   a. Were there guidelines or a framework to follow?
   b. Was it tailored for target groups?

d. How did the team decide what content would be posted? (text, images, videos)

3. When MoveU was launched at the beginning of the year, how many people were posting to the social media sites?

   a. How did the Partners decide who would be posting content to the SM sites in terms of their age, gender, and so forth? (i.e., that a young person who is close in age to the target audience will be most effective?)

   b. Did this change over the course of the year?
      a. Hiring qualified individuals
      
      c. How did the Partners decide when posts would be made by each person? (how was it coordinated between the 3 campuses)

      d. Were there any challenges with having a single Twitter and Facebook account for all 3 campuses? (students from different campuses losing interest because of over saturation of posts from one campus)

      e. Were there any benefits with having a single Twitter and Facebook account for all 3 campuses?

- How it IS being used. How was social media used in MoveU? (E.g., one way communication, 2-way?; trying to get people to interact and post on it? Trying to get people to share posts to their network of friends?)

   a. Do you think the social media strategy strengthened the MoveU campaign?

   b. Did the social media components unfold according to how they were initially set out? (regarding the number and nature of posts- i.e., 3 posts/day; content of them)
c. Were the social media components as interactive as you thought they would be?

   a. Do you think people were concerned with their privacy? Shy, embarrassed to post?

- **How it SHOULD be used.** What recommendations do you have for the social media component for next year? (e.g., *what would maximize its potential as a platform to encourage healthy behaviours*)

   a. Recommendations for content (text/images/videos)?

   b. Recommendations for who should post (*in terms of their age, gender; Peer Leaders? Students*)?

   c. Recommendations for increasing interactivity? (*to maximize the potential of social media*)

- Do you think the social media component of MoveU was successful in its first year?

   a. How do you know this? (e.g., # “likes”, followers, comments on posts, video views)

- I’d like to end with a broad question. Are you aware of any other health behavior change/health promotion interventions that are currently using social media platforms?

   a. If yes, are there strategies that they use that you think would be effective to implement with MoveU?

That covers all of the questions that I had to ask you. Is there anything else you’d like to share about your experiences or impressions of MoveU?
E.2 Focus group schedule one: Students exposed to MoveU

Eligibility Criteria:

- 1st or 2nd year female student
- Attended at least one MoveU event

1.5 hours

Hi everyone. Thank you all so much for being here. We’re here today because most if not all of you have attended at least one MoveU linked event, and we would like to hear from you about your experience at the event as well as about your overall experience with the MoveU campaign, the peer leaders, and physical activity promotion on campus. Just want to make it very clear that there are no right or wrong answers, and this is very informal, so you don’t have to like raise your hand. Just chip in your idea whenever you see fit.

**Background Information (10 mins)**

1. Has your physical activity changed in any way since you were in high school?
   1. Frequency? Intensity? Duration? Type?
   2. What are some things that have made it difficult for you to be physically active in your first year of university?
   3. What are some things that have made it easier for you to be physically active in your first year?

**Awareness (40 mins)**

Everyone here attended at least one MoveU event. So, we’d like to learn more about your impressions of the MoveU campaign and some of its elements.

- What do you think are the main goals or objectives of MoveU?
  - What groups of people do you think the campaign is specifically trying to reach out to?
  - Based on your experience with MoveU, what areas or topics is the campaigns trying to focus on?
- What role do you think that the Peer Leaders played in raising awareness of MoveU?
- Do you think that MoveU reached UTM students all across campus, at the very least in terms of students being aware of it?
  - Where were students most likely to learn about or be exposed to MoveU?
  - Where were students least likely to learn about or be exposed to MoveU?
Can you remember any of the advertisements you came across, for example, some of the posters and their messages?

- What did you think about the advertisements for MoveU?
  - Were they visually appealing?
  - Did they make you think differently about being active? In what way?

**Promotion, Events, & Experiences (30 mins)**

Next, we would like to learn more about your experiences with MoveU Peer Leaders [TEAM NAME] and events.

- What event or events did everyone here attend, and can you tell me a bit about your experience there?
  - Why did you attend that event or those events in particular?
  - Would you attend that event again?
  - Did you interact with any Peer Leaders at the events?
  - How could we improve the event or events that you attended next year?

- And how did you all find out about these MoveU events?
  - Did you attend any events and not realize they were “MoveU” events until you got there?
  - Did you invite friends to attend events with you? Did friends invite you to attend with them?
  - What could be done to improve the promotion of MoveU events for next year?

- What other kinds of activities or events would you recommend for MoveU?
  - Types, timing, location, etc.

- Aside from MoveU events, where did you encounter MoveU Peer Leaders on campus?

- Overall, do you think it is important to have a campaign like MoveU at this university?

**Social media (15 mins)**

In this last section of the focus group, we would like to open up a discussion about social media. Social networking tools like Facebook and Twitter are starting to be used as platforms to deliver health promotion interventions, like MoveU. So, we wanted to know what you thought about them.
To start, do you think social media is a useful health promotion tool for your age group, like sharing physical activity tips and advice?

- When thinking about health promotion, how do websites and social media compare?

How often, if at all, do you use social media for health information?

- What kind of health information do you seek from social media?

Are you aware of the MoveU Facebook and Twitter page?

- When did you become aware of them? How did you learn about them?
- Have you “liked” the MoveU Facebook page? Do you follow the Twitter page?

**IF THEY SAY YES, CONTINUE WITH THESE QUESTIONS. IF NOT, SKIP TO**

What kinds of messages do you recall seeing, from the social media pages? [OR: what kinds of posts do you think you’d like to see]

- MoveU Event invites/reminders (e.g., skating, exam jam)
- Recreational information (i.e., yoga classes are offered every Wednesday)
- Motivational posts (i.e., memes of people saying “never give up”)
- Humorous posts (i.e., Ryan Gosling photo)

Did any of you participate in a MoveU event, or any other events, after hearing about it through the Facebook or Twitter newsfeed?

What do you think about the number and type of posts and notifications?

- Did those messages have any influence on your thoughts? Attitudes towards physical activity? Intentions to be more active? Actual physical activity behaviour?
  - Too many or too little?
  - Do you find the posts informative and relevant?
  - What do you think of the tone of the posts and tweets? Did it sound like a peer was speaking to you?
  - Did you interact with/engage with any of the posts?
  - Did you experience any barriers to posting?
  - Are you concerned about privacy or confidentiality when posting?
- Are you hesitant to voice your opinion publically?

- What else would you like to see in a MoveU posts and notifications and what could be done to improve MoveU social media for next year? [OR: Even though you are not present on the social media, if you were to design the page, what would you like to see in MoveU posts and notifications to draw you to it?]
  
  - Helpful reminders to engage in healthy active living
  - Forum to discuss healthy active living
  - Opportunity to develop relationships with other first year students
  - Opportunity to build a sense of community/belonging at UofT
  - What else would you like to see in MoveU posts and notifications?

- What do you think about having all three campuses on one social media platform?

That covers all of the questions that we had to ask you. Does anyone have anything else they’d like to share about their experiences or impressions of MoveU?

Thank you everyone for sharing your thoughts and feelings with us. As a reminder, everything that you shared today will be treated as confidential. When we share this information with others, we will discuss the results at a group-level. None of the information will personally identify you. If you wish to see the results from this study, please send me an email. Thank you for your time!
E.3 Focus group schedule two: Students not exposed to MoveU

Eligibility Criteria:

- 1st or 2nd year female student
- Has not attended a MoveU event

45 minutes

Hi everyone. Thank you all so much for being here. We’re here today because most if not all of you have not attended any MoveU linked events, and probably don’t even know about the campaign, and we would like to hear from you about physical activity promotion on campus. Just want to make it very clear that there are no right or wrong answers, and this is very informal, so you don’t have to like raise your hand. Just chip in your idea whenever you see fit.

Background Information (10 mins)

- How has physical activity fit into your university experience?
  - How often do you think about physical activity?
- Has your physical activity changed in any way since you were in high school?
  - Frequency? Intensity? Duration? Type?
  - What are some things that have made it difficult for you to be physically active in your first year?
  - What are some things that have made it easier for you to be physically active in your first year?

Awareness (10 mins)

- Before being invited to participate in this focus group today, were you aware of the MoveU campaign?
- Have any of you seen a MoveU advertisement on campus [or any PA promoting ads on campus]?
  - What did the advertisement look like?
  - What did you think about it? Was it visually appealing to you?
  - Did it make you think differently about being active? In what way?
- What are the facilities for physical activity that you know of on-campus?
  - Are you aware of a lot of opportunities to be active on campus? For example, at these facilities or just generally around campus?
**Promotion, Events, & Experiences (15 mins)**

As a bit of background information, MoveU was launched in 2012 across all three UofT campuses (St. George, UTM and UTSC) in partnership with ParticipACTION, the national voice of physical activity and sport participation. The MoveU team is made up of staff and students. The purpose of MoveU is to help students identify opportunities and find motivation to engage in physical activity. MoveU also hosts events, for example, “She’s Got Game” was a fun filled day in September, aimed at giving women a chance to try several intramural sports, and there were plenty of prizes given out. It is not surprising that everyone here has heard little about the MoveU campaign and has not attended any MoveU events, because this is only the second year that it was launched.

- As a first or second year student, what kinds of topics would you like a PA-campaign at your university to focus on?
  - **Academic, social, etc.**

In planning for next year, we would like to hear your ideas about how to promote events and what events to hold, so that we can improve the MoveU campaign for its second year.

- What would be an effective way of advertising MoveU events on campus?
  - **Booths, posters, Peer Leaders...**
  - **Where should the posters be put up on campus?**

- What other kinds of activities or events would you recommend for MoveU?
  - **Types, timing, location, etc.**

There is a peer-led component of the MoveU campaign. A team, called the MoveU Crew, is made up of UofT students who have set up booths around campus and helped to host MoveU events.

- As a first-year student, how do you feel about receiving physical activity and health related information from your peers?
  - **Would Peer Leaders be a credible source of information to promote healthy, active living on campus?**
  - **Where on campus would you suggest that Peer Leaders advertise MoveU events in order to reach more students, like all of you?**
    - **Residence, cafeterias, libraries**

- Overall, do you think it is important to have a campaign like MoveU at this university?

**Social media (10 mins)**
In this last section of the focus group, we would like to open up a discussion about social media. Social networking tools like Facebook and Twitter are starting to be used as platforms to deliver health promotion interventions, like MoveU. So, we wanted to know what you thought about them.

- To start, do you think social media is a useful health promotion tool for your age group, like sharing physical activity tips and advice?
  - When thinking about health promotion, how do websites and social media compare?

- How often, if at all, do you use social media for health information?
  - What kind of health information do you seek from social media?

So, when MoveU was formed, they created a Facebook and Twitter page, in order to further drive the messages of the campaign. What they do is on a daily basis, they post messages about recreational information of what's going on on campus, as well as MoveU event invites, and also little physical activity related things.

- Are any of you aware of the MoveU Facebook and Twitter page?
  - When did you become aware of them? How did you learn about them?
  - Have you “liked” the MoveU Facebook page? Do you follow the Twitter page?

- If you were to follow the social media pages, what kinds of information would you want to see in the posts and notifications?
  - MoveU Event invites/reminders (e.g., skating, exam jam)
  - Recreational information (i.e., yoga classes are offered every Wednesday)
  - Motivational posts (i.e., memes of people saying “never give up”)
  - Humorous posts (i.e., Ryan Gosling photo)

- Now that you know that there are MoveU Facebook and Twitter pages, would you join and interact with them? Why or why not?
  - Yes: To receive tips on where to be active/programs/events happening
    - For helpful reminders to engage in healthy active living
    - To access a forum to discuss healthy active living
    - To develop relationships with other first year students
    - To build a sense of community/belonging at UofT
o No: Do you rarely interact with social media in general?

  • Are you concerned about privacy or confidentiality when posting?
  
  • Are you hesitant to voice your opinion publically?
  
  • Time consuming

  • What do you think about having all three campuses on one social media platform?

That covers all of the questions that we had to ask you. Does anyone have anything else they’d like to share about their experiences or impressions of MoveU?

Thank you everyone for sharing your thoughts and feelings with us. As a reminder, everything that you shared today will be treated as confidential. When we share this information with others, we will discuss the results at a group-level. None of the information will personally identify you. If you wish to see the results from this study, please send me an email. Thank you for your time!

The End.