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The Development, Implementation, and Evaluation of an Evidence-Based Social Media Campaign Designed To Enhance Social Connectedness For First-Year University Students

Julie Vo, *Western University*

Supervisor: Burke, Shauna M., *The University of Western Ontario*

A thesis submitted in partial fulfillment of the requirements for the Master of Science degree in Health and Rehabilitation Sciences

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Abstract

The primary purpose of this study was to develop, implement, and evaluate the feasibility of a 10-week, evidence-based social media campaign (“iBelong@Western”) targeting the social connectedness of first-year university students ($n = 30$; $M_{\text{age}} = 18.5$, $SD = 4.9$) in London, Ontario. The secondary purpose was to explore participant perceptions of the campaign and its impact on social connectedness. Developed over a 3-month period using evidence-based approaches (e.g., participatory action research, SMILE framework), the campaign was implemented from March-May, 2023. Feasibility was assessed using social media analytics and data from one semi-structured interview; participant perceptions were explored using the latter only. Overall, results revealed that iBelong@Western demonstrated adequate feasibility and shows promise as a comprehensive, evidence-based knowledge translation tool designed to enhance social connectedness among first-year university students. While they cannot be generalized, the participant perspectives gathered may be useful in the development of future social media campaigns.

Keywords: social media campaign, social media, social connectedness, university students, first-year students, university transition, COVID-19 pandemic

Summary for Lay Audience

Social connectedness plays an important role in the wellbeing and academic success of university students, especially during the transition to university. The main purpose of this study was to develop, implement, and evaluate the feasibility of an evidence-based, 10-week social media campaign (“iBelong@Western”), designed to enhance the social connectedness of first-year university students in London, Ontario. The secondary purpose was to explore participant perceptions of the campaign and its impact on social connectedness. The iBelong@Western social media campaign was developed, with input from a student research council, over a 3-month period. First-year university students were recruited (via social media, mass emails, class announcements, and word-of-mouth) to participate in the study, which included completing an online questionnaire, following the social media campaign, and completing an optional interview. Thirty students ($M_{age} = 18.5$, $SD = 4.9$; 64.0% female) participated in the study. The social media campaign was implemented on four social media platforms (Instagram, Facebook, Twitter, and LinkedIn) from March 6 – May 12, 2023. Three posts (Monday Mini-Challenge, Wednesday Wisdom, Friday Focus) were shared every week for 10 weeks. Feasibility was evaluated using social media analytics and data from one semi-structured interview; participant perceptions were explored via the latter only. Results revealed that the campaign had a relatively wide content reach, generating a high number of impressions ($n = 10,832$) across platforms. The Friday Focus posts yielded the highest overall level of engagement on Instagram and Twitter, whereas the Wednesday Wisdom posts generated the lowest engagement on these platforms. On LinkedIn, the Monday Mini-Challenge posts generated the highest engagement and the Friday Focus posts yielded the lowest. Among the platforms, Instagram had the highest levels of engagement, whereas Facebook yielded no engagement. Only one interview was conducted; as such, data pertaining to the participant’s perspectives cannot be generalized. Despite this, the insights shared during the participant interview provided meaningful feedback that can be used in the development of future social media campaigns. Taken together, the findings suggest that iBelong@Western demonstrated adequate feasibility and shows promise as an evidence-based tool designed to enhance social connectedness among first-year university students.

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Chapter 1

1 Introduction and Literature Review

The primary purpose of this study was to develop, implement, and evaluate the feasibility of a 10-week, evidence-based social media campaign (“iBelong@Western”) targeting the social connectedness of first-year university students in London, Ontario, Canada. The secondary purpose was to explore participant perceptions of the campaign and its impact on social connectedness. Chapter 1 of this thesis consists of an overview of the academic literature pertaining to social connectedness, including its relevance to and importance for young people, and university students in particular. In addition, social connectedness among university students during the COVID-19 pandemic and their utilization of social media are discussed. Finally, an overview of the literature pertaining to the design, implementation, and evaluation of social media initiatives, generally and in relation to promoting social connectedness for university students, is provided.

1.1 Social Connectedness

Humans are inherently social beings, driven by the need to belong and connect with others (e.g., Kenrick et al., 2010; Umberson & Montez, 2010; Young, 2008). Similar to other basic needs such as food consumption and sleep, social connectedness plays a significant role in human development and survival (Kenrick et al., 2010; Martino et al., 2017; Umberson & Montez, 2010). According to Maslow’s Hierarchy of Needs (Maslow, 1954), there is a distinct set of human requirements, typically depicted as a pyramid moving from basic to more complex, that individuals are motivated to fulfill in order to achieve personal growth and self-actualization. The first (bottom) level of the hierarchy is *physiological needs*, which encompasses basic biological requirements for human survival (e.g., water, food, shelter). The next level in the hierarchy is *safety needs*, inclusive of such factors as personal security and financial stability. According to this theory, once basic physiological and safety needs are met, humans are motivated to fulfill social (Gambrel et al., 2003; Kaur, 2013; O’Connor & Yballe, 2007)—that is, *love and belonging*—needs (Maslow, 1954; Maslow & Lewis, 1987; Mathes, 1981). In this level of Maslow’s Hierarchy, human socioemotional needs such as connectedness, acceptance,

affiliating, and experiencing meaningful interpersonal relationships represent the main priorities (Maslow, 1954). According to Maslow (1943), when these critical social needs are satisfied, humans desire to achieve *esteem needs* (e.g., self-worth, accomplishment, respect), followed by *self-actualization* (Maslow, 1954). Maslow's theory (Maslow, 1954) posits that self-actualization, the highest level of the pyramid, represents the realization of a person's full potential, self-fulfillment, personal growth, and the attainment of peak experiences.

The *love and belonging* level of Abraham Maslow's hierarchy aligns closely with the seminal work of Baumeister and Leary (1995), who assert that the need to belong is a fundamental human motivation, driven by a strong and innate desire to form and maintain interpersonal connections. While definitions vary, a sense of belonging has been defined in the literature as "a subjective feeling of value and respect derived from a reciprocal relationship to an external referent that is built on a foundation of shared experiences, beliefs or personal characteristics" (Mahar et al., 2012, p. 1026).

Social connectedness and feelings of belonging, then, are clearly integral to the human experience and to optimal development and wellbeing. Perhaps not surprisingly, social connectedness is considered to be a multifaceted construct (Dewa et al., 2021; Kiely et al., 2021; Holt-Lunstad et al., 2017), and numerous definitions have been advanced in an effort to highlight the various associated dimensions (e.g., Asante & Castillo, 2018; Berkman et al., 2000; Cornwell & Waite, 2009; Khan et al., 2021; Lee & Robbins, 1998; Umberson & Montez, 2010). For example, social connectedness has been defined as "the sense of belonging and subjective psychological bonds that people feel in relation to individuals and groups of others" (Haslam et al., 2015, p. 1). Previous to this, Berkman et al. (2000) emphasized the significance of social networks in shaping one's perception of social connectedness, defining the construct as "the degree to which individuals are integrated into their social networks and the frequency and quality of their social interactions" (pp. 137-173). Adding to these definitions, researchers have also postulated that social connectedness encompasses the diversity and strength of social ties (Cornwell & Waite, 2009; Umberson & Montez, 2010) and the sense of integration within social communities (Asante & Castillo, 2018; Khan et al., 2021).

Another widely acknowledged dimension of social connectedness is *social support* (e.g., Evans et al., 2022; Ko et al., 2013; Li et al., 2021). While the literature pertaining to social support is vast, it has been defined broadly as “the perceived or received assistance that an individual has from other people” (Evans et al., 2022, p. 520). Social support can take many forms, including (but not limited to) emotional support (e.g., providing or receiving empathy and comfort), instrumental support (e.g., offering or receiving tangible aid or resources), informational support (e.g., providing or receiving advice and/or guidance), instructional support (e.g., offering or receiving education and training), and appraisal support (e.g., providing or receiving feedback and/or validation; Evans et al., 2022; Ko et al., 2013; Li et al., 2021).

Among the many beneficial effects identified in the literature, social support has been associated with improved mental health symptoms (e.g., decreased depression and anxiety; Bovier et al., 2004; Harandi et al., 2017; Hefner & Eisenberg, 2009; Liu et al., 2016; Roohafza et al., 2014) and greater life satisfaction (e.g., Kong & You, 2013; Mai et al., 2021; Mahanta & Aggarwal, 2013; Shahyad et al., 2011; Yeung & Fung, 2007) in participants across various age groups. For example, Hefner and Eisenberg (2009) conducted a survey-based study to evaluate the relationship between mental health and social support among a large ($n = 1,378$), random sample of university students (aged 18 and older) in the United States. The results showed that university students who self-reported having lower quality social support were significantly more susceptible to experiencing mental health problems than those who self-reported having medium or higher quality social support. Specifically, the authors found that higher self-report scores on a social support quality scale were independently associated with a significantly lower likelihood of depression, anxiety, suicidality, and symptoms of eating disorders among university students (Hefner & Eisenberg, 2009). Previous to this study, Wang et al. (2003) conducted a comprehensive meta-analysis of 208 primary studies published between 1984 and 2001, to investigate the relationship between social support and various health outcome variables among individuals aged 15 to 83. Overall, the findings showed that individuals who reported higher levels of social support experienced a multitude of health benefits across numerous aspects of their lives. For example, significant positive relationships were found for social support and various outcomes including health status, role function and behaviours, psychosocial adjustment,

coping behaviour, quality of life, wellbeing, and self-actualization (Wang et al., 2003). Undoubtedly, social support plays a pivotal role in shaping both overall health and wellbeing.

As alluded to above, from an evolutionary perspective, social connectedness has played a crucial role in the survival, reproduction, and protection of humans throughout history (e.g., Baumeister & Leary, 1995; Hall & Davis, 2017; Walton, 2019). Like social support, social connectedness has been found to be integral to the maintenance of overall health and wellbeing among diverse populations (e.g., Holt-Lunstad, 2021; Holt-Lunstad, 2022; Martino et al., 2017; Seppala et al., 2013; Stafford et al., 2018; Wilkinson et al., 2019). The benefits of social connectedness extend to multiple dimensions of health, including physical (e.g., Crandall et al., 2022; Lem et al., 2021; Morina et al., 2021; Wray et al., 2020) and psychosocial wellbeing (e.g., Haslam et al., 2015; Weziak-Bialowoslska et al., 2022; Umberson et al., 2010). From a health behaviour/physical health perspective, social connectedness has been found to be associated with greater physical activity levels (Davis et al., 2021; Gyasi et al., 2021; Smith et al., 2023; Wray et al., 2020), lower blood pressure (Haslam et al., 2015; Stafford et al., 2018; O'Donovan et al., 2007), and reduced risk of chronic diseases in individuals of all ages (e.g., Haslam et al., 2015; Ozbay et al., 2007; Reblin & Uchino, 2008; Uchino, 2006). Research also suggests that across the lifespan, individuals who maintain strong social connections tend to exhibit reduced inflammation levels in the body (Gouin et al., 2009; Yang et al., 2013) and greater immune responses than those who experience fewer social connections (e.g., Leschak & Eisenberger, 2019; Shattuck, 2021; Snodgrass et al., 2022).

Social connectedness has also been found to have substantial psychosocial health benefits for individuals across all age groups. Research has supported the notion that strong social connections contribute significantly to improved quality of life and life satisfaction, as well as a greater sense of life purpose and fulfillment (e.g., Choudhary et al., 2021; Edwards et al., 2018). Similarly, numerous studies have documented a positive relationship between strong social connections and mental health and wellbeing (e.g., Hare Duke, 2017; Wickramaratne et al., 2022), with findings linking social connectedness to reduced depressive symptoms (Eugene, 2021; Santini et al., 2020), lower levels of anxiety (e.g., Taylor et al., 2020; Weziak-Bialowolska et al., 2022), lower levels of stress (Donovan & Blazer, 2020; Eugene, 2021), and enhanced

overall psychological wellbeing (Saeri et al., 2018; Newman & Zainal, 2020). Such findings have been reported in a range of populations including adolescents (e.g., Eugene, 2021; Blum et al., 2022), young adults (e.g., Saeri et al., 2018), and older adults (e.g., Donovan & Blazer, 2020; Newman & Zainal, 2020; Santini et al., 2020).

Unfortunately, the COVID-19 pandemic has posed significant challenges with regard to maintaining and nurturing social relationships (e.g., Jacobs & Ellis, 2021; King et al., 2022; Lowe et al., 2023); for many individuals, the lack of social connection experienced during the pandemic has negatively impacted both physical (e.g., Castañeda-Babarro et al., 2020; Dwyer et al., 2020; Niermann et al., 2022; Shanbehzaedh et al., 2021) and psychological wellbeing (e.g., Birditt et al., 2021; Matos et al., 2021; Okabe-Miyamoto et al., 2021; Perez-Brumer et al., 2022). Further, while essential to controlling the spread of the virus, adherence to pandemic-related public health measures such as physical distancing, lockdowns, and restrictions on social gatherings (Park et al., 2022) have resulted in reduced opportunities for in-person social interactions and increased feelings of isolation and loneliness among people across the lifespan (e.g., Hwang et al., 2020; Lampraki et al., 2022; O'Sullivan et al., 2021). Moreover, it has been suggested that the prolonged duration of the COVID-19 pandemic has heightened stress levels and uncertainties about the future among young and older people around the world (e.g., Biancolella et al., 2022; Daniali et al., 2023; Manchia et al., 2022; Miyah et al., 2022; Xiong et al., 2020).

In light of the numerous pandemic-related challenges noted above, researchers have explored potential protective factors and found that individuals with higher levels of self-reported social connectedness have reported a multitude of psychosocial benefits (e.g., reduced depression, anxiety, and stress) throughout the COVID-19 pandemic (e.g., Perez-Brumer et al., 2022; Wang et al., 2023). For example, in a 2022 systematic review of 116 studies which focused primarily on young people (i.e., children and adolescents), the authors concluded that positive familial relationships and social support were associated with better mental health outcomes during the COVID-19 pandemic (Samji et al., 2022). Similar findings were reported in a 2021 systematic review of 16 studies conducted by Jones and colleagues to evaluate the impact of the pandemic on adolescents' mental health. Specifically, Jones et al. (2021) found that perceptions of greater

social support among adolescents, along with other factors (i.e., positive coping skills, home quarantining, and parent-child discussions) were associated with improved mental health outcomes (e.g., reduced levels of anxiety and depression) among young people during the early and later stages of pandemic. In short, it is clear that the lack of social connection experienced by individuals, both young and old, during the pandemic has underscored the importance of maintaining meaningful relationships and building strong social networks. More than ever, the value of social connectedness in promoting health and wellbeing has become increasingly apparent.

1.1.1 Social Connectedness Among Young People

Although social connectedness is a fundamental need for (and clearly benefits) people of all ages (e.g., Baumeister & Leary, 1995; Hold-Lunstad et al., 2018; Martino et al., 2015; Wilkinson et al., 2019), its importance for young people has been emphasized in the literature (e.g., Costello et al., 2022; Rosenthal et al., 2007; Turki et al., 2018). Adolescence and early adulthood represent periods of significant growth and development, exploration, and identity formation, during which individuals strive to establish independence while also navigating complex social dynamics (e.g., Blum et al., 2022; Eugene, 2021; Matud et al., 2020). During these life stages, peer relationships and social interactions are instrumental in shaping individuals' emotional development, self-esteem, and psychosocial adjustment (e.g., Doumen et al., 2012; Lane & Fink, 2015; O'Connor et al., 2011; Szkody & McKinney, 2019; Taylor et al., 2014).

The significance of social connectedness is particularly emphasized during adolescence and early adulthood (e.g., Blum et al., 2022; Eugene, 2021; Foster et al., 2017; Forster et al., 2020; Matud et al., 2020). For example, in their 2017 study, Foster and colleagues investigated associations among various types of social connectedness (i.e., family, school, peers, community) and youth emotional (depressive symptoms, anxious symptoms, suicidal ideation), behavioural (substance use, early sexual activity, non-suicidal self-injury, or conduct problems), and adaptive functioning (e.g., high self-esteem, prosocial behaviour, and adaptive uses of leisure time). The participants were young people ($n = 224$; aged 12-15 years) facing specific risk factors (i.e., social challenges and living in an underserved urban community). Results showed, among other findings, that strong connections to both school and family were linked to significantly lower

emotional and behavioural problems and higher levels of adaptive functioning among youth. In addition, community connectedness was associated with significant reductions in anxiety levels (Foster et al., 2017). In fact, researchers have identified significant links among aspects of adolescent functioning and social connectedness in multiple social contexts (e.g., Eugene et al., 2021; Jose et al., 2012). For example, Eugene and colleagues (2021) examined, pre-pandemic, whether specific types of social connections in family, school, and neighborhood settings were associated with internalizing symptoms (i.e., depression and anxiety) among a diverse sample of adolescents ($n = 2,590$; $M_{\text{age}} = 15.6$ years) from disadvantaged backgrounds in the United States. Results revealed that adolescents who reported strong connections with their parent(s), school, and neighborhood were significantly more likely to report lower levels of depression and anxiety, with school connectedness exerting the greatest influence. As such, in addition to other social contexts, targeting social connectedness and belonging in academic settings may serve as one important approach in improving the social and overall wellbeing of young people.

1.1.2 Social Connectedness Among University Students

Another important period of the life course for young people is *emerging adulthood*; a stage of growth and development experienced by most young people as they enter and/or attend university (e.g., Crocetti et al., 2015; Lystad et al., 2020). University students, and first-year university students in particular, typically experience a key milestone during which the formation and maintenance of social connections are critical to their social development and wellbeing (Orben et al., 2020). Many students who have transitioned to university from high school are met with a number of stressors, including moving away from home, living with roommates, adjusting to a new level of independence, and settling into a new environment with different responsibilities (e.g., Malau-Aduli et al., 2021; Romm et al., 2020; Worsley et al., 2021). In addition, first-year students have been found to experience feelings of detachment from their former identities and social networks (Briggs et al., 2012; van Herpen et al., 2020), as well as feeling ‘out of place’ in a new environment (Thomas, 2012). The combination of such stressors—adapting to a new environment, dealing with academic pressures, and meeting the social demands of university life—can be overwhelming for first-year university students (e.g., Hurst et al., 2013; Rayle & Chung, 2007). As such, first-year university students have been

found to experience feelings of unhappiness, dissatisfaction with life, loneliness, isolation, and alienation (Harrison, 2006; Rosenstreich & Margalit, 2015; Scanlon et al., 2007). Such challenges have been associated with increased psychological distress among first-year university students and can also negatively affect academic performance and academic self-efficacy (e.g., Malau-Aduli et al., 2021; Romm et al., 2020; Worsley et al., 2021).

The many benefits associated with perceptions of belonging and social connectedness outlined above are relevant to university students, and to the university community more broadly. In fact, research has shown that university students who report high levels of social connectedness through efforts such as participating in study groups and collaborative learning (Boruzie et al., 2022; Cabera et al., 2002; Cheng et al., 2021; Mendo-Lázaro et al., 2018), establishing supportive relationships with faculty and staff (Brix & Baldwin 2002; Cole & Griffin, 2013; Guzzardo et al., 2021; Komarraju et al., 2010; Parker III, 2020), actively engaging in the campus community (Bild & Pachana, 2022; Cruce & Moore, 2007; Moore et al., 2014; Milton et al., 2012; Haber & Komives et al., 2009; Wallen & Docherty-Hughes, 2022), and participating in regular group-based physical activity (Alsherhi et al., 2021; Gu et al., 2020; Kim et al., 2021; Patterson et al., 2021; Wang et al., 2022; Zhang et al., 2022) are more likely to experience enhanced interpersonal relationships and academic success, as well as improved health and wellbeing. Moreover, university students who report having a strong sense of belonging and greater levels of social support are more likely to report reduced psychological stress (e.g., Chao, 2012; Dwyer & Cummings, 2001; Verger et al., 2009), emotional exhaustion (e.g., Dopmeijer et al., 2022; Li et al., 2018), anxiety (e.g., He et al., 2022; Kugbey et al., 2015; Tholen et al., 2022), and loneliness (e.g., Bernardon et al., 2011; Dingle et al., 2022; O'Donovan et al., 2007).

Research has also shown that first-year university students in particular can benefit greatly from developing and maintaining meaningful relationships with peers, professors, and others in the campus community, as these relationships can foster a sense of belonging and contribute significantly to students' overall wellbeing, academic success, and personal growth (Mattanah et al., 2010; Puttman et al., 2008; So & Fiori, 2022; Tao et al., 2000). For example, in a study conducted in Ireland by Mclean and colleagues (2022) with 315 first-year students ($M_{\text{age}} = 20.8$), the majority (66%) of students reported experiencing moderate levels of stress during their first

semester in university. Findings showed, however, that students who reported higher levels of social support during the initial weeks of commencing university also reported significantly lower levels of perceived stress. Research has also shown that fostering a sense of community and perceptions of belonging among first-year university students can serve to promote a more positive transition experience, which may enhance students' overall health and wellbeing (e.g., Costello et al., 2022; Worsley et al., 2021; Volstad et al., 2020). Together, these findings provide support for the conclusion that it is important to provide opportunities for university students to build and foster social connections, with a particular focus on first-year students during their transition to university life.

1.1.3 Social Connectedness Among University Students During the COVID-19 Pandemic

Throughout the COVID-19 pandemic, there have been reduced opportunities for university students (undergraduate and graduate) to connect meaningfully with others (Jo et al., 2021; Marler et al., 2021; Okabe-Myamoto & Lyubormirsky, 2021). Public health guidelines, necessary to limit and prevent the spread of COVID-19 and implemented in post-secondary institutions worldwide (e.g., closure of campuses, suspension of in-person classes/events, and the transition to remote-learning; Appleby et al., 2022; Gestsdottir et al., 2021; Gopalan et al., 2022; Fruewirth et al., 2021), made it particularly challenging for university students to connect with others in-person. In particular, the shift to online learning was found by some researchers to have negatively impacted university students' sense of belonging (Marlet et al., 2021; Mooney & Becker, 2021; Potts, 2021). This shift in learning, coupled with challenges including feelings of uncertainty, disruptions to the learning process, and limited access to support services, were noted as significant issues for many university students during the pandemic (King et al., 2022; Portra et al., 2021; Wang 2023). Given these challenges, first-year university students have reported declines in both mental and physical health (Marconcin et al., 2022), and greater levels of loneliness and stress during the pandemic, when compared to pre-pandemic levels (Gestsdottir et al., 2021).

In a study by Ling et al. (2021) involving 2,200 first-year and transfer students at the University

of Colorado, it was found that there was a significant decline in student-reported perceptions of belonging and mattering during Fall 2020 (amidst the COVID-19 pandemic), compared to the pre-pandemic levels reported in Fall 2019. Interestingly, the findings also showed that for Fall 2020, meeting five or more new peers with whom they expected to stay in contact, having a positive move-in experience, and being satisfied with the Fall Welcome experience contributed significantly to students' sense of belonging and mattering (Ling et al., 2021). Given these findings, researchers should explore innovative approaches to facilitate social connections among first-year university students, both prior to and upon their arrival on campus.

Lastly, in a recent study conducted as part of the “*i*Belong” program of research, Holmes (2021) explored a large sample ($n = 1,588$) of university students' social media use, perceptions of social connectedness (both in-person and online), and feelings about physical distancing during the early stages of the pandemic in Ontario, Canada (March-April, 2020). Overall, it was reported that university students experienced high levels of social connectedness, both in-person (mean item score [out of 6] = 4.4, $SD = 0.8$) and online (mean item score [out of 6] = 3.8, $SD = 0.7$). Several plausible explanations were presented for these findings, including the common and pervasive “we're in this together” narrative that existed during the early pandemic in Ontario, as well as the fact that many university students reported living with others at the time of data collection, which could also have contributed to feelings of togetherness.

1.2 Social Media Use

With the rapid growth of digital technology, social media has emerged as a dynamic tool for people around the world to connect with others in an online environment (Carr & Hayes, 2015; Hanna et al., 2011; Narauah, 2012). Because social media is inclusive of a broad spectrum of platforms and applications, multiple definitions have been advanced. For example, social media has been described as a group of Internet-based applications that allow the creation and exchange of user-generated content (Kaplan & Haenlein, 2010); a form of computer-mediated communication (McIntyre, 2014) synonymous with social networking sites (Rhee et al., 2021); and as web-based services that allow individuals to create an online profile and share a connection with a list of other users within a bounded system (Boyd & Ellison, 2007).

Communicating via social media platforms, also referred to as social networking sites, is particularly useful due to their convenience and ubiquity; as they are a time-effective alternative that allow young people to interact and stay connected with individuals anywhere, at any time (Decieux et al., 2019; Gonzalez-Padilla & Tortolero-Blanco, 2020).

Social media use, and in particular the use of social networking sites such as Facebook, Instagram, Twitter, and Snapchat, has become highly prevalent among young people worldwide (Chou et al., 2009; Gray 2018; Lim et al., 2022; Anderson & Jiang, 2018) and in Canada (Statistics Canada, 2018; Statistics Canada; 2020). Research in Canada has shown that young people (aged 15-34) were the most engaged on social networking sites compared to other age groups (i.e., >34 years of age), both prior to the COVID-19 pandemic (Statistics Canada, 2018; Statistics Canada, 2019). More specifically, results of the 2018 Canadian Internet Use Survey ($n = \sim 14,000$) showed that approximately 90% of respondents aged 15 to 34 reported using social networking sites “regularly”, which corresponded to the frequent use of social networking sites to keep in contact with family and friends, share content publicly, and follow current events (Schimmele et al., 2021). In 2020, young people aged 15 to 34 were found to have ‘most likely increased’ their social media use since the start of the pandemic (Statistics Canada, 2020).

Similarly, results from a more recent online survey ($n = 1,500$) conducted in May, 2022 by researchers in the Social Media Lab at Toronto Metropolitan University revealed that in comparison to other age groups, young people (aged 18-24) were the largest adopters of social media (Mai & Gruzd, 2022). With regard to specific social media platforms, this study showed that YouTube was most popular, with 93% of young people reportedly having an account, followed by Instagram (87%), Facebook and other messaging apps (e.g., WhatsApp; 83%), TikTok (76%), Snapchat (72%), Twitter (61%), Pinterest (55%), Reddit (45%), and Twitch (42%). According to the authors of this study, although Facebook was the most dominant social media platform in Canada in 2022, it was used more by respondents aged 35 to 44 (89%) than by younger people (86%). LinkedIn was also found to be used primarily by adults aged 25 to 50 (50%; Mai & Gruzd, 2022).

Interestingly, research also suggests that *type* of social media engagement (i.e., active versus passive) can have an impact on various important outcomes for young people (e.g., Lee et al., 2020; Roberts & David, 2022; Thorisdottir et al., 2019). Specifically, it has been found that engaging with social media in an *active* manner (i.e., posting and sharing content on social media platforms; liking, interacting with, and commenting on other people's social media posts; and participating in group discussions or chatting with others online; Dienlin & Joahannes, 2020; Holmes, 2021; Montague & Zu, 2012; Valkenburg et al., 2021; Verduyn et al., 2021) has been positively associated with significantly better psychosocial wellbeing among university students ($n = 2828$; $M_{\text{age}} = 18.3$ years, age ranged from 17 to 25) compared to passive social media use (Keum et al., 2022). Interestingly, three recent studies conducted by Roberts and David (2022) investigated associations among social media intensity and usage, perceived social connection, and psychological wellbeing among undergraduate students in the United States. Study 1 ($n = 146$; aged 19-25) revealed that social media use involving more passive engagement was associated with lower perceived social connection and lower self-reported wellbeing (Roberts & David, 2022). Study 2 ($n = 80$; aged 18-27) found that the interaction between social media use across 11 platforms and high passive use of these platforms was associated with lower perceived social connection and, subsequently, higher self-reported stress. Lastly, Study 3 ($n = 160$ adults aged 19-69) showed that heavy social media use had a negative impact on social connection when used passively, and a positive effect when used actively. These findings shed light on the importance of facilitating *active* social media engagement, in an effort to enhance social connectedness and other positive outcomes among users.

It is important to note that while many benefits do exist, there are also significant risks associated with high social media use among young people (e.g., Ilakkuvan et al., 2019; Naslund et al., 2020; Wilson & Stock, 2021). In a 2018 systematic review of 16 peer-reviewed articles exploring the risks of social media use among children and young people, four areas of risks were identified: cyberbullying and online abuse; exposure to negative forms of user-generated content; the converging of offline and online networks; and developing interpretations of privacy (Willoughby, 2019). Additionally, a systemic review of 43 studies regarding young people's use of social networking sites with a focus on mental health implications reported three areas of risks, including: impact on health-related symptoms (e.g., excessive screen time can increase

anxiety and depressive symptoms); facing hostile interactions (e.g., being victimized by negative comments or posts); and consequences for daily life (e.g., misinformation can impact life decisions pertaining to offline relationships and everyday activities; Best et al., 2014). Excessive use of social media, defined subjectively as “the degree to which individuals perceive that they spend too much time and energy using social media” (Cao & Yu, 2019, p. 84) and more objectively as “spending more than five hours per day on social media” (Vieira et al., 2022, p. 2), has been associated with increased symptoms of anxiety, depression, psychological distress, loneliness, and diminished self-esteem among young people (e.g., Abi-Jaoude et al., 2020; Andreassen et al., 2017; Lin et al., 2016; Woods & Scott, 2016; Vannucci et al., 2017). As such, it is generally recommended that young people who wish to use social media do so responsibly, with limits, boundaries, and a focus on active engagement, so as to reduce the likelihood of experiencing negative consequences.

1.2.1 Social Media Use Among University Students

Social media has been found to be a powerful tool for university students, providing them with opportunities to develop and maintain relationships with diverse individuals and groups, thereby fostering a heightened sense of social support, belonging, and expanded social networks (Raza et al., 2020). Social media allows university students to connect with peers on and off campus through the broadcasting of social events, the dissemination of university supports and resources, and highlighting student experiences (Vornholt & De Choudhury, 2021). Moreover, by using social media, university students can facilitate and enhance academic collaborations, gain access to educational and university resources, and share new knowledge and perspectives (Adil et al., 2020; Al-Rahmi et al., 2022), all of which are likely to positively impact perceptions of social connectedness as well as academic performance (Eid & Al-Jabri, 2016; Eke & Odoh, 2014; Ullah & Wilson, 2007).

Limited research has explored the use of social media platforms to foster feelings of social connectedness and belonging among students who are transitioning into their first year of university; a unique transition period that can be difficult for many students, as outlined above (e.g., Fromme et al., 2008; Parker et al., 2017; Worsley et al., 2021). In this digital age, gaining insight into the patterns of social media use among university students could help to inform

effective strategies to enhance student connectedness, as well as their overall health and wellbeing. In a study conducted by Tuck and Thompson (2021), the researchers explored: (1) how self-reported social media use changed among university students ($n = 176$) in the United States from pre-COVID-19 pandemic to mid-pandemic (i.e., from February-March, 2020); (2) associations between changes in social media use and pandemic-related social and emotional wellbeing; and (3) whether social media use and changes in use during the pandemic were associated with loneliness. The results revealed three main findings: (1) there was a significant increase in self-reported daily time spent on social media sites, habitual use of social media, and social media addiction among university students from pre-pandemic to early pandemic; (2) increased perceived social support during COVID-19 was associated with changes in frequency of SNS use, time per day, addiction, and engagement; and (3) self-reported loneliness was positively associated with social media addiction and negatively associated with social media engagement during the pandemic (Tuck & Thompson, 2021).

As part of the “*i*Belong” study conducted with 1,588 university students in Ontario at the beginning of the pandemic (March-April, 2020), Holmes (2021) also explored social media use, including type of engagement and platforms used, and their potential relations to social connectedness. It was found that university students who reported “greatly” increasing their social media use during the pandemic, as well as those who reported active (e.g., commenting, liking, or sharing posts; Dienlin & Joahannes, 2020) versus passive (e.g., scrolling through posts; Valkenburg et al., 2022) social media use, reported significantly higher levels of both in-person and online social connectedness, as noted above. Further, university students who reported the use of ‘photo-based’ social media platforms such as Instagram, Snapchat, and TikTok, reported significantly higher levels of in-person and online social connectedness compared to those who did not report using such platforms. Interestingly, Facebook was found to be the most commonly used by university students, with 90.7% of participants reporting active engagement on the platform, followed closely by Instagram at 90.1%. Twitter was reportedly used by 41.8% of students, while 31.4% of participants reported using “other” social media platforms, including LinkedIn, Reddit, and YouTube. Again, such findings underscore the importance of promoting active social media engagement among university students, and in particular the use of ‘photo-based’ platforms, to facilitate social connectedness.

With regard to the transition to university specifically, a study conducted by Yang et al. (2022) explored how first-generation and continuing university students ($n = 251$, $M_{\text{age}} = 19.6$) used Facebook and Instagram, and how their usage was related to university social adjustment. Overall, 79% of participants reported being active (i.e., using the platform at least a few times a week) Facebook users and 83% reported being active Instagram users. Results showed that first-generation students reported using Facebook less frequently than continuing students to interact with on-campus friends, and that social media interaction with on-campus friends was related to better social adjustment in university for both cohorts. The authors noted that through online interactions with peers, university students experienced heightened psychological engagement in various campus activities, thereby facilitating their overall social adjustment (Yang et al., 2022). Thus, this research highlights further the potential of social media as a powerful platform for promoting social connectedness among students during their transition into university.

1.3 Health-Related Social Media Initiatives

The rapidly evolving landscape of technology has prompted researchers to develop social media campaigns in an effort to disseminate health-related information and research findings in an effective and engaging manner (e.g., Chan et al., 2020; Elliot et al., 2020; Lu et al., 2021; Puljak, 2016). In some cases, research has shown that health-related social media campaigns can positively influence health behaviours and perceptions across different demographics (e.g., Buda et al., 2021; Petkovic et al., 2021; Welch et al., 2018). For example, evidence-informed strategies aimed at the promotion of healthy eating among residents of Saskatchewan, Canada ($n = 1,178,681$; ≥ 18 years of age) during the COVID-19 pandemic have been shared on Facebook, Instagram, and Twitter during the implementation of the #eatwellcovid19 social media campaign (Grantham et al., 2021). This 16-week social media campaign, led by a dietitian and nutrition student, focused on disseminating evidence-based nutrition information and sharing personal stories submitted by community members in the early stages of the COVID-19 pandemic (April – August, 2020). Using data obtained via 20 semi-structured qualitative interviews, the researchers categorized participants into two types of social media campaign followers: (1) those who appreciated hearing the submitted stories, as it helped them feel connected to the

community during periods of isolation; and, (2) those who appreciated receiving evidence-based information, as it empowered them to develop greater resilience regarding food and nutrition challenges experienced throughout the pandemic (Grantham et al., 2021). It was also reported that the level of engagement by participants, such as likes and comments, appeared to be superior on Instagram posts in comparison to those on other platforms (i.e., Facebook and Twitter). A limitation of this study was that the researchers were unable to determine whether changes in eating behaviours occurred as a direct result of the campaign; however, some qualitative data suggested that small behaviour changes may have occurred or been prompted by the campaign. Overall, the use of personal stories and experiences was found to be a valuable strategy to engage participants, facilitate online social connections, and promote informed health-related decision-making (Grantham et al., 2021).

Social media campaigns targeting the health of young people, including university students, have also been successful in increasing awareness and changing health-related behaviours (e.g., increasing physical activity levels [Edney et al., 2018; Northcott et al., 2021]; increasing healthy food intake [Goodyear et al., 2021]; reducing alcohol consumption [DeJong, 2002; Glider et al., 2001]; and smoking cessation [Baskerville et al., 2016; Richardson et al., 2017]). Although many of these social media campaigns focus primarily on health and health behaviours, they also often strategically or inadvertently provide opportunities for young people to form social connections, provide and receive social support, share attitudes and perspectives, and work towards common goals (e.g., DeJon, 2002; Edney et al., 2018; Goodyear et al., 2021; Richardson et al., 2017).

Social media platforms used to disseminate health information to broad audiences have also been found to be effective in terms of reaching and engaging young people. For example, a social media campaign entitled “Break-it-Off” was developed and implemented by the Canadian Cancer Society in 2016 to encourage smoking cessation among young adults (19-29 years of age) across six provinces in Canada (Baskerville et al., 2016). The campaign was designed using a website with information about established quit methods, the opportunity to upload a video and share experiences of “breaking-up” with smoking via Facebook, and a multi-platform smartphone app that provided instant support during triggering situations (Baskerville et al., 2016). The results showed that the campaign reached 37,325 unique visitors with a total of

44,172 visits. Further, the Break-it Off users were found to have significantly higher 7-day and 30-day quit rates compared with users of a comparator resource (i.e., Smokers' Helpline). At the 3-month follow-up, Break-it-Off participants were more likely than participants using the Smoker's Helpline to have quit smoking for 30 days (32% vs. 14%) and to have made a quit attempt (91% vs. 39%; Baskerville et al., 2016). According to the authors, the reach of the campaign and findings related to quitting success showed that a multicomponent digital and social media campaign represents a promising intervention for young people to engage, receive support, and improve their health. These results highlight further the potential of using a well-designed social media campaign to foster a sense of belonging and create a supportive community for young people seeking to improve their health and wellbeing.

1.3.1 Social Media Initiatives Targeting First-Year University Students

In an attempt to foster social connections among university students, a number of research studies have explored the role of various social media initiatives in facilitating a successful transition to university life (e.g., Gail & Hanson, 2014; Nalbone et al., 2015; Stone & Logan, 2018; Thomas et al., 2017; Torbjørnsen et al., 2021). For example, the effects of using social media as a tool for student transitions were observed in a 2-year longitudinal study (Wave 1, Fall 2020; Wave 2, Fall 2021) exploring the attitudes and persistence of first-year university students ($n = 1,033$) who received a social networking intervention (i.e., Facebook groups) or not (Nalbone et al., 2015). Results showed that students who received the intervention and felt that the Facebook groups had a positive impact on them academically or socially reported better academic and social support, superior interactions with faculty, and greater ease in forming friendships and working with others on campus in comparison to those who did not receive the intervention.

Thomas et al. (2017) also explored the use of social media during the transition to university. First-year university students ($n = 25$) from two institutions in the United Kingdom were asked to set up a Pinterest board and document their use of social media (e.g., Facebook, Instagram, Twitter, etc.) over a 6-week period. Results showed that university students' self-reported use of social media appeared to have played a large role in reflecting and celebrating community ties that existed prior to starting university, thereby strengthening their 'home' identity. Interestingly,

social media was also found to help students establish a new university identity, form new online and offline friendships, as well as facilitate the process of adjustment, assimilation, and integration to their new university community (Thomas et al., 2017).

While social media has been used in various ways to facilitate social connections among students transitioning to university, there is limited research available on the implementation and evaluation of social media campaigns designed specifically to foster these connections among first-year students.

1.3.2 Evidence-Based Strategies for the Development of Social Media Initiatives

Various foundational approaches have been used in the development of social media initiatives targeting young people (e.g., Baskerville et al., 2016; Chochol et al., 2023; Dowshen et al., 2015; Pickering et al., 2022; Thomas et al., 2017). For example, the participatory action research method (Wadsworth, 1998), which allows participants to collaborate and participate in the research process, was used in the development of the Break-it-Off smoking cessation campaign to ensure that research outcomes had a meaningful impact on the target population (Baskerville et al., 2016). Participatory action research is often conducted with knowledge mobilization as a goal, to maximize the intellectual, cultural, social, and economic impact of research in all sectors (Labbé et al., 2020). The participatory action research approach holds great potential for the development of social media campaigns targeting young people, as it could empower individuals to contribute their insights, experiences, and perspectives, allowing their voices to be incorporated into the campaign's design, messaging, and strategies.

In addition, several theoretical and/or evidence-based strategies used to effectively design and develop social media initiatives have also been outlined by researchers (Baskerville et al., 2016; Chochol et al., 2023; Dowshen et al., 2015; Pickering et al., 2022; Thomas et al., 2017). Such strategies encompass a range of components, including identifying and understanding the target audience (Chew et al., 2018; Derwin & Foreman-Wernet, 2012), tailoring messages to the specific needs of the audience (An et al., 2021; Chapman et al., 2021), integrating behaviour change theories (Evans et al., 2022; Thackeray & Neiger, 2000), collaborating with social

networks (Kaplan et al., 2010; Lutkenhaus et al., 2019), and leveraging the diverse features and functionalities offered by social media platforms (Hwong et al., 2017; Moran et al., 2020).

In the realm of health promotion, recent studies have offered frameworks and findings, many of which overlap with the approaches and strategies discussed above, that could provide valuable guidance for the development and implementation of social media initiatives (e.g., de Vere Hunt & Linos, 2022; Zhao et al., 2022). Notably, de Vere Hunt and Linos (2022) proposed a comprehensive framework/guide that outlines five key principles related to the use of social media in public health campaigns. The first principle emphasizes the importance of targeting and tailoring messages to specific audiences, with a focus on enhancing relevance, engagement, and the likelihood of behaviour change. The second principle highlights the value of including members of the target population in the development of campaign messages; a principle that aligns closely with the participatory action research method. As noted above, when using this research method, the unique insights, perspectives, and lived experiences of members from the target audience are incorporated into the messaging process in an effort to improve campaign relevance and effectiveness (Labbé et al., 2020). Addressing misinformation represents the third key principle of the framework outlined by de Vere Hunt and Linos (2022). According to these authors, by providing accurate, evidence-based information and actively debunking myths, social media initiatives can promote informed decision-making while also combatting the spread of misinformation. The fourth principle of the framework emphasizes the power of information sharing. By fostering a culture of information dissemination, social media initiatives can extend their reach and impact, as well as facilitate social connectedness and peer-to-peer communication. Lastly, the framework underscores the importance of evaluating impact by measuring real-world outcomes (e.g., foot traffic data); arguably, publicly accessible social media metrics could constitute such real-life data. In short, these five principles, as proposed by de Vere Hunt and Linos (2022), provide a comprehensive roadmap for developing evidence-based social media initiatives targeting health and wellbeing.

Another approach that could be used as a potential guide in the development of evidence-based social media campaigns is the Social Media for ImpLementing Evidence (SMILE) framework developed by Zhao and colleagues (2022). With a focus on promoting the use of evidence in

health care decision-making using social media, the SMILE framework was created using an integrative approach that involved reviewing several long-standing social media initiatives and drawing on five theories, frameworks, and models: integrated Promoting Action on Research Implementation in Health Services (i-PARIHS; Harvey & Kitson, 2016); capability, opportunity, motivation, and behavior (COM-B; Michie et al., 2011); Fogg behavior model (Fogg, 2009); theory of innovation diffusion (Rogers et al., 2014); and behavior change model for Internet interventions (Ritterband et al., 2009). According to Zhao and colleagues (2022), in order for social media campaigns to effectively enable recipients to use research evidence in their decision-making, the content developers must respond to the target audience's needs and contexts. In addition, as outlined in the SMILE framework, it is important for campaign designers to ensure that social media messages are aesthetically appealing, easily readable, readily findable, backed by credibility, and user-friendly. In addition, Zhao and colleagues recommend the use of “triggers”, which refer to crafting messages that ignite motivation, serve as reminders, and enable recipients to enhance their own knowledge and skills. Similar to “*Call-To-Action*” strategies that have been used in social media campaigns (i.e., a direct request to the target audience to perform a desirable behaviour; Ju et al., 2023), triggers play a vital role in promoting active social media engagement among users (Zhao et al., 2022).

Together, the abovementioned approaches, strategies, and frameworks can provide a foundation for the development of effective, evidence-based social media messages and campaigns targeting specific groups (e.g., first-year university students) and outcomes (e.g., social connectedness). Leveraging the elements of successful social media initiatives and focusing on factors such as visual appeal, accessibility, interactive components, and meaningful messaging can also enhance campaign understanding and inclusion.

1.3.3 Evidence-Based Strategies for the Implementation and Evaluation of Social Media Initiatives

As noted above, the growing use of social media by researchers and organizations to apply and disseminate evidence-based research in practical settings has resulted in the development of numerous implementation strategies in social media initiatives (e.g., Barklamb et al., 2020; La

Sala et al., 2021; Rasheed et al., 2021; Stalgaitis et al., 2020). For example, La Sala et al. (2021) conducted a feasibility study to assess the acceptability and impact of the #chatsafe campaign targeting suicide prevention among 189 young people aged 18 to 25. The researchers used content themes and a structured delivery schedule to ensure the successful implementation of the 12-week Instagram campaign, which featured weekly posts in the form of short videos, animations, or static images addressing topics related to suicide, self-care, and overall wellbeing. Throughout the campaign, various social media metrics were recorded by the research team to assess *reach* (i.e., the total number of unique users who have seen a particular post) and *engagement* (i.e., overall number of impressions, as well as the frequency of 'likes' and views for each post), providing valuable insights regarding the campaign's impact on the target audience. In addition to monitoring social media metrics, participants in the study completed three questionnaires measuring acceptability, willingness to intervene against suicide, and perceived safety, over a 20-week period (4 weeks prior to the intervention, immediately following the intervention, and at a 4-week follow-up). The results showed that participants reported being more willing to intervene against suicide following the campaign, as well as greater self-efficacy, confidence, and perceived safety when communicating about suicide on social media. Designed and implemented as a well-structured evidence-based campaign with targeted content, the #chatsafe campaign demonstrated feasibility and highlights further the potential of social media as a platform for health promotion among young people.

In another relevant study, Rasheed and colleagues (2021) explored the design, implementation, and evaluation of a social media-based communication strategy within a tertiary care hospital in Pakistan. The ultimate goal of the study was to improve the patient and family experience by enhancing employee experience of care through an online communication platform—a Facebook page—for all employees of the pediatric service line (Rasheed et al., 2021). Again, a noteworthy implementation strategy employed in this study was the establishment of a well-defined posting schedule, featuring themed posts that corresponded to specific days of the week (Rasheed et al., 2021). For instance, Wednesdays were designated for "gratitude" posts to spread positivity, while Fridays were dedicated to "appreciation" posts honouring individual members or groups. According to the authors, this thematic approach also facilitated a systematic analysis of the posts, allowing for a deeper understanding of their impact and effectiveness. The evaluation

framework employed in this study relied on the monitoring of quantitative social media metrics, utilizing Facebook Insights as the primary analytical tool (Rasheed et al., 2021). These metrics included important indicators such as reach, percentage of active members, average comments, reactions, and ratings on each post, which provided tangible data to assess the campaign's feasibility and its impact on the target audience. Overall, results showed that the initiative successfully facilitated the provision of support that employees sought by fostering a supportive environment through: acknowledging and appreciating their efforts; enabling the expression of emotions and grievances; providing timely assistance when needed; and fostering personal connections and acquaintances (Rasheed et al., 2022). This study serves as an example of how specific social media communication strategies, when implemented alongside a systematic framework for implementation and evaluation, can effectively enhance participant engagement and expand reach. It also provides an evidence-based rationale for the use of various quantitative social media metrics as useful indicators of a campaign's feasibility and effectiveness.

1.4 Study Purpose and Hypotheses

Social connectedness plays a pivotal role in the overall wellbeing and academic success of university students (Mattanah et al., 2010; Puttman et al., 2008; So & Fiori, 2022; Tao et al., 2000). Although research has demonstrated the efficacy of social media initiatives in fostering positive health behaviours among university students (e.g., Baskerville et al., 2016) and facilitating the transition into university (e.g., Stone & Logan, 2018; Thomas et al., 2017; Torbjørnsen et al., 2021), there is currently a lack of research that focuses on the use of social media campaigns to enhance social connectedness among first-year university students. Therefore, the primary purpose of this study was to develop, implement, and evaluate the feasibility of a 10-week, evidence-based social media campaign (“iBelong@Western”) targeting the social connectedness of first-year university students in London, Ontario, Canada. The secondary purpose was to explore participant perceptions of the campaign and its impact on social connectedness.

With regard to the portion of the primary purpose concerned with *feasibility*, and given the widespread use of social media amongst university students (e.g., Adil et al., 2020; Al-Rahmi et

al., 2022; Raza et al., 2020; Vornholt & De Choudhury, 2021), it was anticipated that overall, content reach (i.e., reach, impressions, and video views) and participants' level of engagement (i.e., total post interactions and engagement rate) with the campaign would be moderate to high across the four social media platforms used in the study. Further, given that studies have found that there tends to be higher levels of social interaction on "photo-based platforms" such as Instagram in comparison to "text-based platforms" such as Twitter and "mixed platforms" such as Facebook (Alhabash & Ma, 2017; Holmes, 2021; Pittman & Reich, 2016), it was anticipated that the total post interactions (i.e., total number of likes, shares, and comments) and the engagement rate (i.e., the level of interaction users have with the content) would be highest for Instagram posts. While the level of post interactions and engagement rate for each category of post (i.e., Monday Mini-Challenge, Wednesday Wisdom, and Friday Focus posts) was also explored as part of the feasibility analysis, no a priori hypotheses were advanced. With regard to the secondary purpose and based on previous literature concerning social connectedness and university students (e.g., Asghar et al., 2021; Ashraf et al., 2021; Sobaih et al., 2022; Vornholt & De Choudhury et al., 2021), it is possible that as first-year students were presented with information about the importance of connecting with peers, faculty members, and their communities (and ideally, engaging with prompts/activities designed to facilitate social connections), their perceptions of the campaign and its impact on social connectedness would be positive.

Chapter 2

2 Methods

The purpose of this chapter is to provide a comprehensive overview of the various steps and procedures used to design, implement, and evaluate the 10-week iBelong@Western social media campaign. First, this chapter offers an outline of the study design and context, providing important background information to help situate the study and participants in relation to factors associated with the COVID-19 pandemic. Next, the *development* of the iBelong@Western social media campaign is outlined in detail. As noted below, this phase involved several critical steps (primarily evidence-based), including the selection of appropriate social media platforms to maximize reach and engagement, the decision to implement a public (rather than private) social media campaign, and the development of the campaign structure, including an overview of post categories, themes, and design elements. The *implementation* phase of this study is then discussed, including an overview of participant eligibility and recruitment, as well as a detailed description of the overall study procedure. Finally, the *evaluation* of the iBelong@Western social media campaign is presented, including an overview of measures used to collect participant demographic information, feasibility metrics, and participant interview data.

2.1 Study Design and Context

The current study was designed to assess the feasibility (primary purpose) and to explore participant perceptions (secondary purpose) of a 10-week social media campaign entitled “iBelong@Western”, which was developed and implemented to enhance social connectedness among first-year university students in London, Ontario, Canada. The development and implementation phases of this study overlapped; iBelong@Western was developed over a period of three months (i.e., from February – May, 2023) and was implemented from March 6, 2023 to May 12, 2023.

In terms of context, it is important to note that prior to the implementation of the current study in 2023, most first-year university students in Ontario had experienced two years of remote/online/hybrid learning in high school as a result of the COVID-19 pandemic (El Masri et

al., 2020; Fitzpatrick et al., 2021; Gallagher-Mackay et al., 2020; Gallagher-Mackay & Brown, 2021). From March, 2020 to May, 2021, the majority of high school students in Ontario had experienced a total of five complete school closures and four partial re-openings (Gallagher-Mackay et al., 2021); in fact, Ontario high school students experienced a total of 20 weeks of remote or online learning during this period—the most among all of the provinces/territories in Canada (Gallagher-Mackay et al., 2021). The time period during which this study was designed and implemented (i.e., February – May, 2023) represented the third year of the ongoing pandemic and took place amidst the 7th wave of COVID-19 (June 19, 2022 – March 25, 2023) as reported by Public Health Ontario (2023). At the time of the study, however, Ontario was experiencing a steady decline in COVID-19-related hospitalizations and deaths (Public Health Ontario, 2023). As part of Ontario’s re-opening strategy, all capacity limits on indoor public settings had been lifted, allowing businesses and schools to resume ‘normal’ operations as of March 1, 2022 (Fitzpatrick et al., 2022). In London, Ontario, where the current study took place, COVID-19 rates had also recently declined during this period (February – May 2023) (Middlesex-London, 2023).

In response to the COVID-19 pandemic, many post-secondary institutions, both globally and in Ontario, implemented online and hybrid (a combination of in-person and online; Li et al., 2022; Nandlall et al., 2022) learning models to meet the evolving needs of students and educators (Blaskovits et al., 2023; Imran et al., 2023; Neuwirth et al., 2021; O’Dea & Stern, 2022). In the 2022/2023 academic year, Western University (the study’s host university) announced an effort to prioritize in-person learning via the continued implementation of vaccination and masking policies (Western University, 2022). The Fall 2022 Orientation Week at Western University was also held in-person, offering first-year university students an array of events and activities during their first week on campus in an effort to support their social and academic transitions (Western University Students’ Council, 2023). As for the academic year, Western University offered several blended courses (in addition to both in-person and online courses), in which many first-year university students experienced a mix of face-to-face and online instruction (Western University Centre for Teaching and Learning, 2023).

It is generally accepted that despite adaptive measures, resources, and supports put in place for university students upon their ‘return’ to university campuses throughout the pandemic, many learners have continued to experience significant challenges, including those related to social connectedness, mental health, and engagement in both virtual and in-person learning environments (e.g., Chu & Li, 2022; Marler et al., 2021; Nandlall et al., 2022). Recognizing the pressing need to support first-year university students as they continue to navigate the many challenges associated with both the transition to university life and a global pandemic, the iBelong@Western social media campaign was designed to foster a sense of belonging and social connectedness in this population.

2.2 Development of the iBelong@Western Social Media Campaign

As noted above, as part of the primary purpose of this thesis, the following section provides a comprehensive overview of the *development* of the iBelong@Western social media campaign, which took place from February 15, 2023 – May 12, 2023. Unfortunately, while the social media campaign was initially planned to be implemented at the beginning of the Fall 2021 school term (e.g., during Orientation Week), the research team experienced several unexpected delays. As such, the campaign was implemented during and following the second term in the 2022/2023 academic year. All components of this study, including study amendments, were approved by the Western University Non-Medical Research Ethics Board (Project ID: 121680, see Appendices A and B).

2.2.1 Selection of Social Media and Specific Platforms

Considering the widespread use of social media by university students in Canada (Nowrouzi-Kia et al., 2021; Smith, 2017) and in Ontario (Cook et al., 2021; Holmes, 2021; Seko et al., 2022), as well as the lack of technology-based initiatives focused on enhancing social connectedness for young people, a social media campaign was deemed to be an appropriate tool to reach our target audience (i.e., first-year university students). Social media was selected as the digital platform of choice, rather than a website or blog for example, because it offers several advantages including the potential for real-time communication and instant interactions and updates with the target

audience (Heldman et al., 2013). Moreover, leveraging social media platforms allows participants to interact with the campaign content through likes, comments, shares, online conversation, and engaging with a community around shared interest (Heldman et al., 2013). Social media is also predominantly accessed through mobile devices, enabling users to connect with the campaign from wherever they are located (Heldman et al., 2013). Further, given the widespread and documented popularity of social networking sites such as Instagram, Facebook, Twitter, and LinkedIn among young people in Canada (e.g., Mai & Gruzd, 2021; Statistics Canada, 2018; Statistics Canada, 2020) and in Ontario specifically (Holmes, 2021), these four platforms were selected for use in the current study.

2.2.2 Rationale for a Public (versus Private) Social Media Campaign

Public social media accounts typically include content posted by the user that is accessible to a wide audience (Boyd et al., 2007; Gruzd & Hernández-García, 2018). On these accounts, anyone (whether a follower or not), can view and engage with posts. Private social media accounts, on the other hand, provide the user with control over who can access content; in other words, content shared on a private social media account is limited to approved followers or friends only (Boyd et al., 2007; Gruzd, & Hernández-García, 2018).

While there appear to be very few private social media campaigns used for research purposes in the literature, private social media groups have been used more generally for a wide range of health- and education-related purposes (e.g., Gaddy & Topf, 2021; Ganjoo et al., 2021; Henry et al., 2020; Steadman et al., 2014). For instance, private Facebook groups have become popular tools for patients with chronic diseases to share their experiences and gather health-related information (e.g., Gaddy & Topf, 2021; Steadman et al., 2014). Additionally, Facebook and Instagram groups have been used to facilitate faculty-student interactions and discussions to promote learning in educational settings (e.g., Ganjoo et al., 2021; Henry et al., 2020).

Conversely, many health-related social media campaigns have been implemented using public social media accounts (e.g., Elgersma et al., 2022; Grantham et al., 2021, Hassan et al., 2021), as this type of an account offers a distinct advantage over private accounts in terms of broader reach and accessibility (Zhan et al., 2019). Given that the overall purpose of the present study was to evaluate the feasibility of the iBelong@Western social media campaign, the decision to use a

public social media account for implementation was driven by the goals of enhancing reach and accessibility, as well as fostering ‘authentic’ engagement (i.e., participants willingly and meaningfully interact with content that personally resonated with them). Moreover, a public social media campaign enables the assessment of key performance indicators such as reach, impressions, and engagement metrics—which are crucial in evaluating a campaign's feasibility—as they are considered publicly available data.

While a potential drawback from a research perspective is that the use of a public social media campaign means that non-participants can also join and engage with the account, a public account allows for a wider range of ‘real-life’ audience feedback, enhancing the campaign's potential impact, relevance, and future scalability. Further, from an ethical perspective, the research team felt that ‘blocking’ individuals from the campaign simply because they did not want to participate in (or know about) the research study was contrary to inclusivity and to the study’s ultimate goal of enhancing social connectedness among first-year university students. For these reasons, a public social media campaign was identified as the ideal approach for this study.

2.2.3 Structure of the iBelong@Western Social Media Campaign

Drawing insights from the successes of other health-related social media campaigns that have demonstrated the effectiveness of a consistent posting schedule (e.g., Eppes et al., 2023; Rasheed et al., 2021; Thorn et al., 2020), it was decided that the 10-week social media campaign would consist of three weekly posts, shared on Mondays, Wednesdays, and Fridays. Further, based on data from a survey of over 1,000 marketers which showed that the optimal times to post on social media – across all industries and platforms – are from or 12pm to 3pm or 6pm to 9pm (Hubspot, 2023), we chose to share campaign posts between 6pm and 9pm Eastern Standard Time (EST). Given that numerous university classes, tutorials, and study sessions are scheduled during daytime hours, it was anticipated that the active engagement of students on social media may be somewhat limited during this time. In light of this, the decision to post during the 6pm to 9pm (Eastern Standard Time) time period was made with the intention of maximizing the campaign’s reach and impact. By strategically posting during these hours, we hoped to capitalize on the

evening hours and target a larger number of students who may have had more time and availability to interact with the campaign content.

After selecting the weekly dates and posting times, the iBelong@Western research team, along with input provided by members ($n = 11$) of the iBelong Student Research Council (iBelong SRC; additional detail provided below), brainstormed the specific focus of the weekly posts. Given research suggesting the advantages of prompts and challenges used to foster engagement among participants in health-related social media initiatives (e.g., Barklamb et al., 2020; Friedman et al., 2022; Kelly et al., 2023; Saboia et al., 2020), we decided to incorporate a *Call-to-Action* strategy (Ju et al., 2023; Rogers et al., 2018) in the first category of posts, which we coined the iBelong “Monday Mini-Challenge”. These mini-challenges involved presenting participants with a small goal or action prompt (i.e., a “trigger”) designed to encourage active participation and provide participants with opportunities to engage, connect, and share their experiences (Pederson et al., 2020) based on each week’s theme (described below). The Monday posts set the stage for and incorporated evidence-based findings related to the weekly theme, as well as strategies and/or tips for successfully completing the mini-challenges. They also encouraged participants to spend time with the content through reflection and executing action items related to social connectedness. For example, during Week 1 (Theme: Setting “Social” Goals), participants were encouraged to identify and record one S.M.A.R.T “social” goal (see Appendix C, Figure 1 for an example of Week 1’s Monday Mini-Challenge post). Throughout the six ‘slides’ in this single post, participants were also provided with a definition of “social” goals, evidence-based information highlighting the benefits of setting S.M.A.R.T goals, and specific examples of S.M.A.R.T “social” goals that may be relevant to first-year university students. Providing evidence-based content has been found to be an effective strategy in previous social media campaigns with regard to improving knowledge, awareness, and attitudes towards health-related behaviours (e.g., Baskerville et al., 2016; Grantham et al., 2021; Hassan et al., 2021). The integration of evidence-based content was meticulously woven into all aspects of the iBelong@Western campaign, ensuring its credibility on platforms otherwise rife with misinformation.

The second category of posts, entitled the “Wednesday Wisdom” posts, encompassed a series of educational posts that were developed to disseminate evidence-based information related to social connectedness and university students, and were also designed in line with the weekly theme. These knowledge translation posts provided followers with credible, research-informed information and drew heavily upon research findings from the iBelong research program (e.g., Holmes, 2021), as well as other relevant literature on social connectedness and university students (e.g., Costello et al., 2022; Rosenthal et al., 2007; Turki et al., 2018). For example, during Week 4 (Theme: Community Connectedness: Belonging Beyond Western), participants were provided with an easily digestible summary of evidence-based findings emphasizing the importance and benefits of community engagement and connectedness for university students (see Appendix C, Figure 2 for an example of Week 4’s Wednesday Wisdom post). Throughout the four slides included in the post, findings were included from a number of research articles in an effort to highlight the positive impact of active involvement in the community (i.e., stronger sense of self and belonging in the community). In addition to the research findings, evidence-based practical tips for fostering meaningful community engagement were provided in this post, empowering students to build enriching connections beyond the confines of the university environment. Whenever possible, Wednesday Wisdom posts included such strategies, drawing links between the research in a given area and specific actions and behaviours that students could engage in meaningfully, both on and off campus.

The Monday Mini-Challenge and Wednesday Wisdom posts were created using the knowledge-to-action framework (Granham et al., 2006) whereby research evidence was synthesized and used to develop and shape an effective knowledge translation tool. Concise bullet points were created, key terms were highlighted, and practical strategies and/or tips were offered to facilitate the implementation of key takeaways. These actionable recommendations were carefully crafted to be applicable and feasible within and beyond the university setting. Further, to ensure inclusiveness and adherence to accessibility guidelines, the Accessibility Checker tool available in Microsoft Word (Microsoft Office 2019, Version 16.30. [19101301]) was used to flag potential accessibility issues, allowing for the resolution of concerns related to clarity, inclusiveness, and conciseness. By effectively and creatively sharing expert knowledge and evidence-based recommendations in an accessible manner, the campaign aimed to empower

students with the tools and knowledge to cultivate meaningful relationships and strengthen their sense of belonging.

The third category of weekly posts was labelled “Friday Focus”, and consisted of video posts created by the research team to share resources and supports with participants, highlighting a range of services and unique opportunities related to social connectedness for students both on and off-campus. The purpose of these videos was to enable participants to explore avenues for connection and to seek support and opportunities beyond the scope of the campaign, widening their access and exposure to valuable resources and initiatives within the university and in the local community. A previous social media campaign has demonstrated the effectiveness of utilizing videos to enhance engagement on social media and promote the utilization of campaign-related resources (e.g., Breastfeed4Ghana, Harding et al., 2019). Furthermore, videos showcasing real stories and the personal experiences of young people and their peers have been shown to foster a sense of community and establish relatability with the content (Thorn et al., 2020). When creating the Friday Focus videos, it was therefore important to gather content showcasing experiences that would be relatable to first-year university students. The Friday Focus posts also featured research-based questions that were asked to various members ($n = 17$) of the Western University community (i.e., the iBelong research team, iBelong@Western Student Research Council, the Health Studies Students’ Association) who graciously volunteered their time and shared their expertise for these videos. The videos served as a platform for peers and community members to share their personal experiences, research insights, valuable resources, and effective strategies related to social (and in particular, community) connectedness. The diverse range of topics covered in these posts aimed to invoke meaningful thought and discussion, and to deepen students’ collective understanding of social connectedness. For example, during Week 5 (Theme: Teamwork Makes the “Studying” Dream Work), members of the Health Studies Students’ Association shared tips for effective studying and group work, highlighting the positive impact of collaboration and how to foster social connections in an academic setting. A link to Western University’s Learning Development and Success team for peer-assisted learning and individual academic counselling (https://learning.uwo.ca/peer_assisted_learning/) was also provided.

Another important consideration in the development of the Friday Focus posts was the length of the videos. Research on audience attention span has suggested that shorter social media videos

(i.e., 40-60 seconds) tend to be associated with higher engagement and better information retention (Comp et al., 2020; Habibi & Salim, 2021). Thus, to optimize audience attention, the videos created for this campaign adhered to best practices and were designed to be approximately 1-2 minutes in duration. This length was also selected to account for limitations imposed by each social media platform (e.g., the maximum video length for Twitter is 2 minutes and 20 seconds; Twitter, 2023). Lastly, to ensure accessibility, closed-captioning was used for all videos. Lastly, to maintain consistency, all study posts and captions were identical across all four social media platforms, with the exception of Twitter, where the captions had to be condensed due to a 280-character limit (Twitter, 2023).

2.2.4 Social Media Campaign Weekly Themes

Adopting a participatory action research approach (Wadsworth, 1998), the iBelong@Western Student Research Council (SRC), comprised of 11 university students from diverse academic programs across all years of study, played a pivotal role in shaping the weekly themes for the 10-week social media campaign. Specifically, the iBelong@Western SRC members were consulted by the iBelong research team (formally) twice. In the first meeting, the team brainstormed social media content, topics, and themes related to social connectedness that may be appealing and relevant to first-year university students. In addition, the prevailing themes identified in the literature regarding the challenges encountered by first-year students during their transition to university (e.g., academic goals, social relationships, psychological distress, university satisfaction; Malau-Aduli et al., 2021; Romm et al., 2020; Worsley et al., 2021) were also discussed. In the second meeting, held two weeks later, SRC members were provided with an initial template of the iBelong@Western social media campaign, and were invited to share their thoughts and feedback pertaining to content, themes, and how the information was displayed (including graphic design elements). Through collaborative discussions and brainstorming, the final iBelong@Western weekly themes were co-created, enhancing the likelihood that they would resonate with the Western University student community.

In line with the participatory action research approach (Wadsworth, 1998), the first-hand experiences and diversity of the Student Research Council members involved in the development

of the iBelong@Western social media campaign enriched the development process and final product, as they were intimately familiar with the dynamics of campus life and this important transitional period. The final co-created weekly themes included in the campaign focused on social (including personal, school, and community) connectedness and encompassed various aspects of university life, including academic, social, emotional, and institutional contexts. The themes were thoughtfully developed and scheduled in accordance with Western University's academic calendar. We considered significant dates (i.e., Spring Reading Week, various holidays, last day of classes, etc.) to ensure the contextual relevance of our thematic content. For example, Week 5's theme (*Teamwork Makes the "Studying" Dream Work*) was implemented prior to Reading Week and emphasized collaborative efforts, effective study strategies, and mutual support among peers, in an effort to equip students with practical tools as they approached exams. Further, in recognition of the heightened stress that accompanies mid-term and exam periods, Week 6's theme (*School/(Social) Life Balance*) was designed to provide students with resources, insights, and encouraging messages in order to help them navigate the challenges of exams while also nurturing their mental and emotional health. This was followed by Week 7's theme of *Belonging and Mental Wellbeing*. The 10 weekly themes, along with the posting schedule, for the iBelong@Western social media campaign are outlined in Table 1.

Table 1

Weekly Themes and Posting Schedule of the iBelong@Western Social Media Campaign

Week #	Theme	Posting Schedule*
1	Setting "Social" Goals	March 6, 2023 – March 10, 2023
2	Belonging@Western	March 13, 2023 – March 17, 2023
3	Connecting with Faculty & Staff Members @ Western	March 20, 2023 – March 24, 2023
4	Community Connectedness: Belonging Beyond Western	March 27, 2023 – March 31, 2023
5	Teamwork Makes the "Studying" Dream Work	April 3, 2023 – April 7, 2023
6	School/(Social) Life Balance	April 10, 2023 – April 14, 2023

7	Belonging and Mental Wellbeing	April 17, 2023 – April 21, 2023
8	Belonging and Physical Wellness	April 24, 2023 – April 28, 2023
9	Online Social Connectedness	May 1, 2023 – May 5, 2023
10	Building a Community of “Social Connectedness” Champions	May 8, 2023 – May 12, 2023

Note. Posts were shared on Instagram, Facebook, Twitter, and LinkedIn on Mondays, Wednesdays, and Fridays between 6pm and 9pm (Eastern Standard Time).

2.2.5 Design of Social Media Posts

2.2.5.1 *Graphic Design*

Best-practice principles from multimedia design (Spicer & Coleman, 2022) were used consistently in the development of all social media posts. To ensure that the content presented in the campaign was visually appealing and engaging, all social media posts were crafted using the graphic design platform, Canva (Gehred, 2020). Further, using Joshi and Gupta's (2021) guide on disseminating research-based infographics on social media, content and design considerations were integrated into the development process. For example, the posts were structured as a series of three to six photos/slides, allowing for a comprehensive presentation of information while maintaining concise and readily digestible ‘segments’ of information. More specifically, the social media posts in the campaign were designed to: (1) be concise, understandable, and self-explanatory for ease of interpretation for the participant; (2) convey curated and important information using precise and accurate wording; and, (3) incorporate images and infographics to accurately and effectively represent data and participant relatability (Joshi & Gupta, 2021). Consistent branding elements were employed to ensure a recognizable and cohesive presence, reinforcing the overarching campaign's message and objectives (Joshi & Gupta, 2021). The graphic designs for the social media posts were created to: (1) have and adhere to a colour scheme (i.e., light and dark shades of purple to align with the broader “iBelong” theme, as well as light turquoise to complement the dominant purple palette); (2) be symmetrical and proportional; (3) avoid overcrowding and/or too much information; (4) include a uniform font for optimal visual appeal (i.e., Barlow Condensed and Monserrat Classic were used for their

simple, clean lines and modern appeal); and, (5) be accessible and in compliance with web content accessibility guidelines (e.g., closed-captioning for the videos; Joshi & Gupta, 2021).

2.2.5.2 *Content Creation and Posting Procedure*

All posts were developed and finalized by the student researcher (JV), after a thorough editing and review process by the Principal Investigator (SB). During the template development phase, a Word document was created for each week of the campaign to draft the content and captions for all posts, in addition to maintaining a comprehensive list of research articles that were used (and to be referenced or linked in the posts). Numerous iterations and revisions were made for all posts, based on feedback from the Principal Investigator and other members of the research team. As noted above, posts were designed to succinctly summarize research findings, and were presented in a visually compelling manner that prioritized clarity and accessibility (i.e., by avoiding scientific jargon and technical terms whenever possible; Dames, 2022; Rakedzon et al., 2017; Sedgwick et al., 2021). Additionally, the captions associated with the photos included a summary of the content, a clear *Call-to-Action* (e.g., asking questions, inviting participants to share their thoughts or experiences, or encouraging them to like, comment, or share the post), and hashtags (i.e., #ibelongwestern, #socialconnectedness, #belonging) using relevant terms to improve the reach of the posts (Chakrabarti et al., 2023). For the video posts, the student researcher (JV) reached out to members of the Western community one week prior to filming for potential collaboration. All videos were filmed on an iPhone 12 and edited using CapCut (CapCut 2023, Version 2.5.0), a video editing application.

Once all posts were finalized and approved, the student researcher (JV) shared them on the four social media platforms (i.e., Instagram, Facebook, Twitter, and LinkedIn). It should be noted that posts were shared on existing iBelong social media accounts, for practical and branding purposes (i.e., the iBelong account names already existed) and to create consistency across the studies included in the iBelong program of research. To prepare for the social media campaign, however, the research team “cleaned” the accounts on all platforms, which involved the removal of any previous study/research-focused content and other information that was not pertinent to the current study. However, in preparation for the iBelong@Western study and to maintain continuity and continued engagement with the previously existing iBelong followers, a series of

generic wellness posts (unrelated to social connectedness) were posted to the iBelong social media accounts prior to the start of the study. Because these accounts had existing followers, attention was paid in this study to tracking the growth of new followers on all platforms throughout the campaign.

2.3 Implementation of the iBelong@Western Social Media Campaign

This section includes an overview of the implementation of the iBelong@Western social media campaign, including a review of participant eligibility criteria, the recruitment process, and the general study procedure.

2.3.1 Participants

2.3.1.1 *Eligibility Criteria*

Participants were eligible for the study if they: (a) were enrolled (at the time of the study) as a first-year university student attending Western University (main campus only) in London, Ontario; (b) were regular users of at least one of the following social media platforms: Instagram, Facebook, Twitter, and/or LinkedIn; (c) had access to the Zoom Video-Communications platform; (d) were proficient in English; and (e) provided consent to participate. Participants were excluded from the study if they: (a) were not enrolled as a first-year undergraduate student at Western University; (b) did not have or use Instagram, Facebook, Twitter, and/or LinkedIn; (c) did not have access to the Zoom Video-Communications platform; (d) could not speak or read in the English language; and (e) did not provide consent. For the purpose of the present study and based on a previous Canadian Internet Use Survey conducted by Statistics Canada (2018), a “regular” social media user was defined as an individual who uses social media frequently to remain in contact/keep up with family and friends, share content publicly, and follow current events (Schimmele et al., 2021; Statistics Canada, 2018). This definition was provided to participants as part of the screening survey.

2.3.1.2 *Recruitment*

Participant recruitment took place over a two-week period, from February 16, 2023 to March 5, 2023. Strategies that have been found to be successful in previous iBelong research recruitment (e.g., postings on social media platforms, class announcements, and mass recruitment emails; Holmes, 2021; Omar, 2022) were used to recruit first-year university students at Western University. Other evidence-based recruitment strategies found to be successful in social media-related research (e.g., advertising posters on social media; Grantham et al., 2021) were also used. Specifically, the recruitment approach used in this study involved posting study information on various social media platforms (i.e., Instagram, Facebook, Twitter, and LinkedIn) through existing public *ibelongstudy* social media accounts and the iBelong website (*ibelongstudy.com*), research team members' personal social media accounts, and *iBelong@Western* Student Research Council members' accounts. Mass emails were also sent using Western University's Mass Email Recruitment system, online and in-person class announcements were made in various first-year courses across campus (in a range of academic programs) at Western University, and word-of-mouth was also utilized. All recruitment materials (see Appendix D) provided general and consistent study information (e.g., noting the 10-week social media campaign and the optional post-intervention focus group), and a QR code, survey link, details about the study incentive (weekly draws for a \$20 Amazon e-gift card), and researcher contact information were also provided.

2.3.2 Study Procedure

2.3.2.1 *General Overview and iBelong@Western Study Protocol*

As noted above, this study involved completing an online questionnaire and following the *iBelong@Western* social media campaign on at least one social media platform (i.e., Instagram, Facebook, Twitter, and/or LinkedIn). Throughout the 10-week duration, participants were encouraged to engage with the *iBelong@Western* social media campaign (e.g., liking, commenting, or sharing posts), though any interaction was optional. Social media metrics, publicly available on all platforms, were recorded throughout the 10 weeks to assess campaign feasibility (i.e., *content reach* and *level of engagement*). Following the campaign, participants were invited to partake in an optional online focus group (initial plan) or a one-on-one online

interview (secondary plan) designed to gather participant insights and experiences regarding the iBelong@Western social media campaign and its impact on social connectedness.

2.3.2.1.1 Qualtrics Survey

Students who viewed and clicked on or scanned the study link/QR code (found on recruitment posts and e-mails) were directed to an online survey (see Appendix E) containing eligibility/screening questions, information about study procedures, and an option to provide informed consent. The survey was administered via Qualtrics (Qualtrics, Provo, UT; version February, 2023, © 2023 Qualtrics), a secure online survey software, and was also designed to assess various participant factors (i.e., demographic information and self-reported social media use; see evaluation section). Specifically, the online survey contained six sections: (1) screening questions and mental health resources; (2) the letter of information for the full study and social media campaign consent; (3) social media campaign set-up instructions; (4) social media campaign weekly incentive draws and consent page; (5) the letter of information and consent for the optional online focus group/interview; and (6) the participant information survey containing demographic, descriptive, and social media use questions (see Appendix F). Once an individual accessed the online survey, they were immediately prompted to complete screening questions to confirm their eligibility. If students were ineligible for the study, they were unable to proceed with the survey. Eligible students were then able to access the full online survey, which took approximately 15-20 minutes to complete. Consenting participants were directed to a survey page containing an overview of several national, provincial, and local mental health resources available to university students. Participants were able to skip questions they did not wish to answer and could modify their responses at any point in time. Skip logic (i.e., a functionality in Qualtrics that is used to change, skip, add, or remove questions based on participant responses) was also enabled for efficiency and helped to ensure that participants were only completing relevant questions. It should be noted that this survey was reviewed by 4 students and members of the iBelong research team prior to ‘publishing’ it on Qualtrics.

2.3.2.1.2 Social Media Campaign Instructions and Set Up

In the third section of the online survey, and after providing consent to follow iBelong@Western, participants were provided with instructions on how to “set-up” and get started with the social media campaign. Participants were asked whether they had access to the four social media platforms (Instagram, Facebook, Twitter, and LinkedIn) and based on their responses (yes/no), were provided with links to and instructions regarding how to follow the “ibelongstudy” accounts on the platform(s) of their choosing. Upon completion of the campaign set-up, participants were directed to a survey page containing information and questions about the weekly incentive draws.

2.3.2.1.3 Consent for the Weekly Study Incentive Draws

After setting up to begin the 10-week campaign, participants were directed to the fourth section of the survey, which contained information about the weekly study incentive draws. All participants who consented to participate in the study were given the opportunity to participate in a weekly draw, which took place every Friday evening after the Friday Focus posts were shared (procedure for the weekly draws is provided below). Throughout the 10-week social media campaign, a total of ten Amazon e-gift cards valued at \$20 each were distributed as prizes.

Given the public nature of social media, participants were asked to provide consent to have their social media handle(s) publicly announced on all four platforms should they be randomly drawn as a winner; if participants were selected as winners and did not consent to this, a post was made acknowledging that a random winner had been drawn for that week. It is important to note that participating in the draws was optional, which allowed participants to choose their level of involvement in the campaign based on their personal preferences.

2.3.2.1.4 Consent for the Online Focus Group/Interview

After skipping or completing the social media campaign weekly incentive draws and consent page, participants were directed to a Qualtrics page containing a summary of the optional focus group portion of the study. A link to a Google Drive containing the letter of information for the

focus group, as well as a comprehensive list of mental health resources was provided. Participants were informed about the optional nature of the post-campaign focus group, and asked to provide consent if they were interested. Participants who consented to participating were then asked to provide their email address for contact and scheduling purposes.

While the focus groups were part of the originally planned study protocol, the research team made the decision following the social media campaign to transition to one-on-one online interviews as a result of several recruitment challenges (full procedure is outlined below). As such, an ethics amendment was submitted and approved. Only participants who had provided consent to participate in a focus group were contacted for participation in an interview; no additional consent was necessary for participants who responded and scheduled an interview.

2.3.2.2 *Implementation of the Weekly Social Media Posts*

To participate in the study, participants followed the existing *ibelongstudy* account(s) on the Instagram, Facebook, Twitter, and/or LinkedIn social media platforms. The *iBelong@Western* social media campaign was implemented using a strategic and consistent posting schedule that took place over the course of ten weeks (March 6, 2023 to May 12, 2023); and, as noted above, a structured posting schedule (i.e., between 6pm and 9pm on Mondays, Wednesdays, and Fridays) was implemented to ensure regular engagement with the audience. The campaign also included an introduction post outlining the structure of the *iBelong@Western* social media campaign (see Appendix C, Figure 3 for the introduction posts and an example of a weekly draw winner post), as well as information about the three categories of posts and the weekly incentive draws. As mentioned previously, engagement in the *iBelong@Western* social media campaign was entirely optional for participants, allowing them the freedom to decide their level of involvement.

2.3.2.3 *Protocol for the Weekly Study Incentive Draws*

To ensure fairness and transparency, the winner of each weekly draw for the \$20 e-gift card was selected through a randomized process. Participants' email addresses were entered into a unique Excel spreadsheet which was kept separate from other participant data. The spreadsheet was then randomly sorted to determine the recipient of the prize. In the event that an individual's email

address had previously been selected, a re-draw was conducted to ensure that a new recipient was randomly chosen. All personal information (i.e., email address, social media handles) was destroyed once the prize was sent (electronically) to the participant. The email containing the claim code and redemption instructions was sent to the weekly recipient on Fridays following the social media posts announcing a winner. To claim their prize, the recipient logged into their (or created an) Amazon account and entered the unique claim code provided in the email.

2.3.2.4 *Protocol for Post-Campaign Focus Groups/Interviews*

At the end of the 10-week social media campaign, an email was sent to students who consented to being contacted about participation in an online, 60-90 minute focus group, using the email address they provided prior to the start of the social media campaign. The letter of information was attached to the email to remind participants about the nature of the project and the focus groups, as well as the risks, consequences, and potential benefits that may be associated with participation. They were also asked whether they were still interested in participating in a focus group, and if so, to provide their availability for scheduling purposes (a Qualtrics survey link with a range of dates and times for May/June 2023 was included in the email). After participants provided their availability, an email was sent with a confirmed date and time and the Zoom link, in addition to a reminder to use their participant IDs that was provided in the email, rather than their names, on Zoom. Additionally, participants were contacted with a follow-up email (and two additional follow-up emails if no response) to select another date/time if there were scheduling difficulties.

As mentioned above, given that participant interest in the post-campaign focus groups was low ($n = 2$), a revised protocol was developed, submitted to the institutional ethics office, and approved. As part of this revised protocol, the following was sent to participants, via email, who had initially expressed an interest in a focus group (see Appendix G for study update email): 1) a study update highlighting the transition to a one-on-one online interview format, along with a Qualtrics survey link used for scheduling purposes; 2) a separate study update for the two participants who had already scheduled a focus group; and 3) a separate email with a revised letter of information for interviews (see Appendix H), as well as the confirmed date and time for those who provided their availability.

Despite the abovementioned efforts, only one online interview was completed. Based on the widespread use of Zoom and its user-friendly design, the platform was used to host and record the interview. This session was password-protected, limited to Western users only, and the meeting was locked to prevent others from joining. Prior to starting, the interviewer (JV) verbally explained to the participant that: (1) the Zoom session would be video-recorded and deleted after the transcript was downloaded for analysis purposes; (2) they could keep their camera on to facilitate engagement (Falter et al., 2022), although this was optional; (3) they should refrain from including or mentioning any self-identifying information (i.e., first or last name, student number, residence/location, etc.); and (4) that the interview would end if there was inappropriate conduct or behaviour. The participant was also reminded that participation in the interview was voluntary; that all information shared in the interview would be kept confidential; and that they may choose not to answer questions or discuss certain subjects at any time. In total, the interview was 90 minutes in duration.

2.4 Evaluation of the iBelong@Western Social Media Campaign

The following section contains a detailed outline of the evaluation process designed to assess the feasibility and participant perceptions of the iBelong@Western social media campaign.

Participant demographic and other descriptive information (i.e., social media use) was also collected and is discussed below.

2.4.1 Participant Information

As mentioned above, participants were asked to complete an online survey (see Appendix F for Participant Information survey) containing several questions related to background/demographic characteristics as well as social media use and engagement.

2.4.1.1 *Demographic Information*

Participants were asked three demographic questions pertaining to their gender, age, and ethnicity, all of which were based on the 2021 Census Canada questionnaire (Statistics Canada,

2021). Specifically, participants were asked to identify their current gender (defined as a construct that could differ from their sex at birth; Statistics Canada, 2021) using the following options: *male*, *female*, and *self-describe*. Participants who selected “self-describe” were provided with an open-ended text box to enter their identified gender(s). Next, participants were asked to type their age into an open-ended text box. With regard to self-reported ethnicity, response options included: White, South Asian, Chinese, Black, Filipino, Latin American, Arab, Southeast Asian, West Asian, Korean, Japanese, and “other”; again, an open-ended text box was provided for participants who wished to specify an ethnicity that was not listed.

2.4.1.2 *Descriptive Information*

Participants were asked five questions regarding their living arrangements and educational status, including: their current living situation (i.e., *campus residence*, *other university housing*, *parent/guardian’s house*, *other off-campus housing*), student status (i.e., *in-province student* [from Ontario], *out-of-province student* [from outside of Ontario], or *international student* [from outside of Canada]), enrollment status (i.e., *full-time student* or *part-time student*), and program of study (open-ended question).

The last set of questions in the participant information section of the online survey related to first-year university students’ use of and engagement with social media ($n = 2$ items). The social media use questions were adapted from those used in previous research conducted by our team (e.g., Holmes, 2021), as well as existing literature on social media use (Primrack et al., 2017; Valkenburg et al., 2022). Specifically, participants were asked: “*On average, how many minutes per day do you spend on social media (in TOTAL, for all platforms/apps combined)?*”, with a text box provided for open-ended responses; and “*In what way(s) do you most often engage with social media?*”, with response options pertaining to active (“*I actively engage with others via online communication, posting updates, sharing photos, and commenting*”) and passive (“*I scroll passively through other people’s posts*”) social media engagement. Given that this was a feasibility study, the inclusion of social media use questions served only to provide descriptive information about students’ baseline social media behaviours, including the duration of students’ interactions with social media and the nature of their engagement. In short, accounting for social media dose or engagement type in statistical analyses was beyond the scope of the present study.

2.4.2 Feasibility

The primary purpose of the study was to assess the feasibility of the iBelong@Western social media campaign. Feasibility was evaluated using both quantitative and qualitative data, collected via social media analytics and one participant interview (discussed in greater detail below). From a quantitative perspective, social media metrics used to assess feasibility included *content reach* (i.e., reach, impressions, and video views) and *level of engagement* (i.e., the total interactions on a social media post and engagement rates for each post). Together, these metrics provide a comprehensive quantitative assessment of the campaign's feasibility and ‘performance’, providing valuable preliminary data on the overall visibility and consumption of content by the target audience. From a qualitative perspective, participant responses (including overall feedback and experiences with the campaign, suggestions, and preferences) gathered from a single online semi-structured interview also shed light on the feasibility of the social media campaign.

2.4.2.1 *Social Media Analytics – Content Reach*

A number of the abovementioned metrics used to assess campaign feasibility (and more specifically, content reach and level of engagement)—including reach, impressions, video views, engagement (e.g., likes/reactions, shares, comments/reposts), and engagement rate—were obtained from Instagram Insights (Instagram, 2023), Facebook Insights (Facebook, 2023), Twitter Analytics (Twitter, 2023), and LinkedIn Analytics (LinkedIn, 2023). This information is publicly available to account administrators on all platforms. While similar, specific definitions for these social media metrics varied by social media platform; all definitions are provided in Table 2.

Table 2

Key Social Media Metrics for Instagram, Facebook, Twitter, and LinkedIn

Social Media Metrics by Platform	Definition
Instagram posts^a	
Reach	The number of individuals who saw the post
Impressions	The number of times the post was seen (may include more than one view from the same individual)

Likes	The number of engagements that involved pressing the like button on the post
Comments	The number of engagements that involved leaving a comment on the post
Shares	The number of engagements that involved sharing the post
Views	The number of times the video was viewed
Facebook posts^b	
Reach	The number of unique individuals who viewed the post
Engagement	The number of actions that individuals made with the post (e.g., post reactions, comments, shares)
Impressions	The number of times the post entered an individual's screen (may include more than one view from the same individual)
Views	The number of times the video was viewed
Twitter posts^c	
Impressions	The number of times the post entered a person's screen (e.g., timeline and search results)
Engagement	Any interaction on the post, including clicks, retweets, replies, likes, etc.
Views	The number of times the video was viewed
LinkedIn posts^d	
Impressions	The number of times the post entered a person's screen
Reactions	The number of engagements that involved pressing the react button on the post
Comments	The number of engagements that involved leaving a comment on the post
Reposts	The number of times the post was reposted
Views	The number of times the video was viewed

^aInstagram. (2019). About Instagram Insights | Instagram Help Center. Instagram.com.

<https://help.instagram.com/788388387972460>

^bFacebook. (2023). What's the difference between Page views, reach and impressions on Facebook? | Facebook Help Center. Www.facebook.com.

<https://www.facebook.com/help/274400362581037>

^cTwitter. (2023). Interpreting the metrics. Developer.twitter.com.

<https://developer.twitter.com/en/docs/twitter-api/enterprise/engagement-api/guides/interpreting-metrics#:~:text=Impressions%20represent%20the%20number%20of>

^dLinkedIn. (2023). Content analytics for your LinkedIn Page. Marketing Solutions Help. <https://www.linkedin.com/help/lms/answer/a564051/content-analytics-for-your-linkedin-page?lang=en>

With regard to the numbers presented as part of the quantitative feasibility analysis, it is important to note that due to the nature of a public social media campaign (and the pre-existing accounts used for this study), the social media metrics include data for all account followers (including those who may not have been study participants). Further, given the anonymity of participants (i.e., the researchers were unaware of participant names/social media handles), it was not possible to remove non-participants for analysis purposes.

2.4.2.2 *Level of Engagement*

2.4.2.2.1 Total Post Interactions

One aspect of social media engagement level is the *total interactions on a social media post* (Barklamb et al., 2020). Total post interactions are often characterized by the total number of “likes”, “comments,” and “shares” per social media post (Grantham et al., 2021; Kim et al., 2020; Trunfio & Rossi, 2021). The total post interaction engagement metrics were extracted from each of the social media platforms and recorded on Microsoft Excel at the end of the 10-week campaign. For Instagram, data provided by Instagram Insights (Essig et al., 2020) included the total number of likes, comments, and shares on a post (Klassen et al., 2018). For Facebook, data obtained from Facebook Page Insights (Houk & Thornhill, 2013) included: (1) the total number of reactions (i.e., when a user expresses their reaction to a post by clicking “like”, “love”, “haha”, “wow”, “sad”, or “angry”); (2) the total number of shares (also referred to as tagging or reposts); and (3) the total number of comments (Klassen et al., 2018). Using data from Twitter Analytics (Perera et al., 2010), engagement on Twitter was operationalized as: (1) the total number of likes (also known as “favourites”); (2) the total number of shares (i.e., “retweets”); and (3) the total number of comments on posts (Twitter, 2023). Lastly, using LinkedIn Analytics (LinkedIn, 2023), engagement on LinkedIn was measured via: (1) the total number of likes on a post; (2) the total number of comments on a post; and (3) the total number of shares on a post (Prateek, 2018).

2.4.2.2.2 Engagement Rate

Level of engagement on social media also encompasses *engagement rate*, which has been recognized by some as the most important metric in terms of measuring campaign ‘success’ (Hwong et al., 2017). Engagement rate measures the level of interactions (e.g., low, medium, high engagement, both positive and negative) followers have with the content that is being posted (Al Aufa et al., 2020). The values required to calculate engagement rate were extracted from the social media platform analytics and recorded on Microsoft Excel at the end of the 10-week campaign. Using Instagram Insights recommendations, engagement rate for Instagram posts was calculated by dividing the total number of likes and comments per post by the total number of followers, multiplied by 100 (Boediono, 2022; Szeto et al., 2021). Engagement rate cut-off values for Instagram are: low = < 7.58%; good = 7.58%-8.58%; and high = >8.58% (Arman & Sidhik, 2019). Using Facebook Insights, engagement rate was calculated by dividing per post engagement by the total reach, multiplied by 100 (Theiss et al., 2016; Jaffar & Eladl, 2016); for Facebook, $\geq 1\%$ engagement rate has been noted as good, 0.5–0.99% engagement rate has been deemed average, and $< 0.5\%$ engagement rate is considered to be low (Jaffar & EladL, 2016). Based on Twitter Analytics recommendations, engagement rate for Twitter was calculated by dividing the total engagements by total impressions (Grantham et al., 2021; Wadhwa et al., 2017). According to the literature, a “good” Twitter engagement rate ranges from 0.2% to 0.9%, while a rate of 7% is considered high (Allen et al., 2022). There is limited research on measuring engagement rates on LinkedIn. However, engagement rate for this platform was calculated by dividing the total engagements by the number of impressions multiplied by 100 (Weaver, 2020). A “good” engagement rate for LinkedIn has been noted to be approximately 2% (Adobe Express, 2022).

2.4.2.3 *Level of Engagement Data Analysis*

After determining the total post interactions and engagement rates across social media platforms, analyses were conducted to determine the level of engagement (i.e., total post interactions and engagement rate) for each post, post category (Monday, Wednesday, and Friday posts), and weekly theme across the 10-week campaign. These analyses allowed us to identify the specific

categories and weekly themes that exhibited the highest and lowest levels of engagement. It was anticipated that an examination of these data would allow us to gain important insights into the content and campaign elements that resonated most with the target audience.

To determine which category of posts (i.e., Monday Mini-Challenge, Wednesday Wisdom, and Friday Focus) had the lowest and highest engagement for each social media platform, we calculated the average total post interactions and engagement rate for each category, as outlined in the example calculations below.

Example 1:

Calculation of Average Overall *Total Post Interactions* by Post Category

Average total post interactions for [Monday Mini-Challenge, Wednesday Wisdom, or Friday Focus] = (Week 1 total post interactions for [post category] + Week 2 total post interactions for [post category] + Week 3 total post interactions for [post category] + Week 4 total post interactions for [post category] + Week 5 total post interactions for [post category] + Week 6 total post interactions for [post category] + Week 7 total post interactions for [post category] + Week 8 total post interactions for [post category] + Week 9 total post interactions for [post category] + Week 10 total post interactions for [post category]) / 10

Example 2:

Calculation of Average Overall *Engagement Rate* by Post Category

Average engagement rate for [post category] = (Week 1 average engagement rate for [post category] + (Week 2 average engagement rate for [post category] + (Week 3 average engagement rate for [post category] + (Week 4 average engagement rate for [post category] + (Week 5 average engagement rate for [post category] + (Week 6 average engagement rate for [post category] + (Week 7 average engagement rate for [post category] + (Week 8 average engagement rate for [post category] + (Week 9 average engagement rate for [post category] + (Week 10 average engagement rate for [post category]) / 10

Finally, to determine which weekly theme (out of 10) had the lowest and highest level of engagement for each social media platform, we calculated the average total post interactions and average engagement rate for each week (see examples below).

Example 1:

Calculation of Average *Post Interactions* by Week

Average total post interactions in Week #X = Total post interactions on Monday post + Total post interactions on Wednesday post + Total post interactions on Friday post) / 3

Example 2:

Calculation of Average *Engagement Rate* by Week

Average engagement rate in Week #X = (Engagement rate on Monday post + Engagement rate on Wednesday post + Engagement rate on Friday post) / 3

2.4.2.4 *Participant Perceptions of Campaign Feasibility*

A portion of the semi-structured interview guide (Appendix I) was dedicated to exploring participants' perceptions of the feasibility of the iBelong@Western social media campaign. These questions were purposefully designed, with accompanying prompts, to gather participant insights regarding their preferences for, as well as strengths and limitations associated with, the campaign. Questions regarding participant suggestions (regarding content, duration, and frequency of posts) and general feedback about the campaign were also asked, serving as an opportunity for participants to contribute their thoughts on possible improvements that could be made to guide current and future research endeavors in the development of social media campaigns targeting social connectedness.

2.4.3 Participant Perceptions of the Campaign's Impact on Social Connectedness

The secondary purpose of this study was to explore student perceptions of the iBelong@Western social media campaign and its impact on social connectedness. In light of our recruitment challenges, participant perceptions were evaluated through a single semi-structured interview with one first-year university student who had engaged with the iBelong@Western campaign.

The semi-structured interview guide contained several questions and prompts designed to explore the participant's views of the *impact of the social media campaign on feelings of belonging and social connectedness* with others and the broader community (see Appendix H).

The interview guide also contained questions aimed at exploring the *student's perceptions of social connectedness and the impact of the campaign on these understandings* as a first-year university student. The participant was also asked to share their experiences regarding the potential challenges they may have encountered when seeking to connect with others, as well as their thoughts regarding challenges and benefits encountered throughout the 10-week campaign.

2.4.4 Focus Group/Interview Data Analysis

While Braun and Clarke's (2006) thematic analysis was originally planned to be used for the focus group data, this plan was revised given the transition to a single semi-structured interview. Thus, narrative analysis was selected for use in analyzing the participant data (Feldman et al., 2004), which involved identifying and extracting key quotes or "narrative highlights" from the interview transcript to allow for a more condensed and focused analysis. In an effort to enhance the trustworthiness of findings (i.e., credibility, dependability, confirmability, transferability; Elo et al., 2014; Connelly, 2016; Kornbluh, 2015; Stahl & King, 2020), several strategies were used in the data collection and analysis phases of the interview portion of the study. This included rapport building and reiterating questions for respondent validation, also known as member checking, to ensure credibility. This involved verbally summarizing (i.e., checking) responses with the participant, which also helped to verify the accuracy and authenticity of the data.

Upon completion of the interview, the transcript was downloaded from Zoom and uploaded to Microsoft Word for data analysis. Throughout data collection and analysis, JV engaged in reflexivity through the practice of 'memoing' (i.e., writing down insights and interpretations of the data throughout the research process; Raskind et al., 2019), thus ensuring the dependability of the data. Further, to enhance confirmability, an independent research member (NKV) also completed a detailed and thorough review of the transcript, highlighting participant quotes and

making notes about potential findings. These notes were then compared with those of the primary researcher (JV); if discrepancies arose, a collaborative process was employed to discuss and resolve any differing viewpoints. Discrepancies were minimal, however, underscoring the alignment of the researchers' interpretations. Finally, all steps and details associated with the research process, including the methods and procedures used to collect data, were documented (i.e., transferability; Schloemer & Schroder-Back, 2018).

By carefully organizing and categorizing the collected insights using a deductive approach (i.e., using the interview guide questions as a framework; Feldman et al., 2004), a comprehensive picture of the participant's experiences and perceptions emerged. This categorization allowed for a structured presentation of the findings, wherein several participant quotes deemed to be relevant to each category were highlighted.

Chapter 3

3 Results

3.1 Participants

At the end of the two-week recruitment period, there were a total of 202 ‘responses’ recorded on the iBelong@Western Qualtrics survey. While bot detection (a Qualtrics survey protection setting; Qualtrics, 2023) was activated by the research team prior to launching the survey, sophisticated bots (i.e., computer-generated algorithms designed to mimic human-like behaviour; Ferrara et al., 2016) were able to bypass these protective measures. In fact, over 85% of the initial survey responses were presumed to be bots based on the following indicators of low-quality or fraudulent data: (1) evidence of inattention; (2) duplicate or unusual responses to open-ended items; (3) inconsistent responses to verifiable items; and (4) evidence of bot automation (Pozzar et al., 2020). These unusual patterns elicited concerns regarding the trustworthiness of the data, including potential participant deception and/or the use of bots. As such, the Qualtrics survey responses were downloaded into an Excel sheet and two members of the research team performed the following steps to ‘clean’ the data and preserve the integrity of the dataset: (1) incomplete (i.e., blank) survey entries were deleted; (2) duplicate survey entries were deleted (i.e., multiple responses in a row with the same email address, social media handle, and/or time completed); (3) responses with email addresses that appeared as random letters and ended in numbers exceeding four digits were deleted, as these characteristics are an indicator of bot-generated email addresses (Wang et al., 2017); and (4) responses with IP addresses that were located outside of Ontario or Canada were deleted, unless participants indicated that they were out-of-province at the time of the survey. After removing potential bots, duplicates, and otherwise ineligible responses ($n = 172$; 85.1%), there were a total of 30 (14.9%) eligible participants remaining. Out of the 30 study participants, only one participant completed a one-on-one online interview.

3.1.1 Participant Demographic Information

Twenty-five out of the 30 participants (83.3%) provided demographic information. Of the 24 participants who reported their age, the mean age was 18.5 years ($SD = 4.9$; age range = 18-22 years). The majority of respondents identified as female ($n = 16$; 64.0%) and described their ethnicity as White ($n = 7$; 28.0%) and South Asian ($n = 6$; 24.0%). With regard to their living arrangements and student status, over half of participants reported living in a campus residence ($n = 15$; 60.0%) and being full-time students ($n = 24$; 96.0%), studying in a range of programs across campus. Approximately three quarters of participants reported being in-province students (i.e., from Ontario, $n = 19$; 76.0%). Participant characteristics are presented in Table 3.

Table 3

*Self-Reported Demographic Characteristics of iBelong@Western Study Participants ($n = 25$)**

Participant Characteristic	<i>n</i> (%)
Gender	
Male	8 (32.0)
Female	16 (64.0)
Queer	1 (4.0)
Indigenous	
Did not identify as Indigenous	25 (100.0)
Ethnicity	
White	7 (28.0)
South Asian (e.g., East Indian, Pakistani, Sri Lankan)	6 (24.0)
Chinese	5 (20.0)
Black	1 (4.0)
Filipino	1 (4.0)
Arab	1 (4.0)
Latin American	2 (8.0)
Korean	2 (8.0)
Housing Situation (During School Year)	
Campus residence	15 (60.0)
Parent/guardian's house	7 (28.0)
Other off-campus housing	3 (12.0)
Current Living Situation	
I am living alone	5 (20.0)
Immediate family (parents, siblings, etc.)	7 (28.0)
Other relatives	2 (8.0)
Roommates (friends, other)	10 (40.0)

Significant other	1 (4.0)
Student Residency Status	
In-province student (from Ontario)	19 (76.0)
Out-of-province student (from outside of Ontario)	3 (12.0)
International student (from outside of Canada)	3 (12.0)
First-Year Student Status	
Full-time student	24 (96.0)
Part-time student	1 (4.0)
Self-Identified Program of Study	
Anthropology	1 (4.0)
Bioinformatics	1 (4.0)
Bachelor of Management and Organizational Studies	4 (16.0)
Engineering	3 (12.0)
Health Sciences	2 (8.0)
Integrated Science	1 (4.0)
Media, Information, and Technoculture	1 (4.0)
Medical Sciences	3 (12.0)
Nursing	1 (4.0)
Political Science	1 (4.0)
Psychology	1 (4.0)
Science	1 (4.0)
Social Sciences	3 (12.0)
Prefer not to say	2 (8.0)

Note. Participants ($n = 24$) had a mean age of 18.5 ($SD = 4.9$) *While there was a total of 30 iBelong@Western participants, only 25 reported demographic information.

3.1.2 Descriptive Information: Self-Reported Social Media Use

Table 4 contains an overview of the iBelong@Western survey data pertaining to the self-reported social media use of the study participants for whom data were available ($n = 25$). With regard to time spent on social media, over half of students ($n = 13$; 52.0%) reported spending in the range of 60-240 minutes (1-4 hours) per day using social media. Among the participants who provided responses regarding their social media engagement behaviour ($n = 24$), over half ($n = 14$; 58.3%) reported engaging *actively* with others (e.g., posting updates, sharing photos, commenting on posts, etc.), while the remainder ($n = 10$; 41.6%), reported *passive* engagement (e.g., scrolling through posts).

Table 4*Self-Reported Social Media Use Among iBelong@Western Study Participants*

Social Media Use Variable	<i>n</i> (%)
Average minutes spent per day on social media (<i>n</i> = 25)	
< 60 minutes (less than 1 hour)/day	2 (8.0)
60 – 240 minutes (1 – 4 hours)/day	13 (52.0)
> 240 minutes (more than 4 hours)/day	8 (32.0)
Prefer not to say	2 (8.0)
Social media engagement behaviour (<i>n</i> = 24)	
Active engagement	14 (56.0)
Passive engagement	10 (40.0)
Prefer not to say	1 (1.0)

Note. While there were a total of 30 iBelong@Western participants, 25 and 24 participants provided data pertaining to time spent on social media use and social media engagement, respectively.

3.2 Feasibility

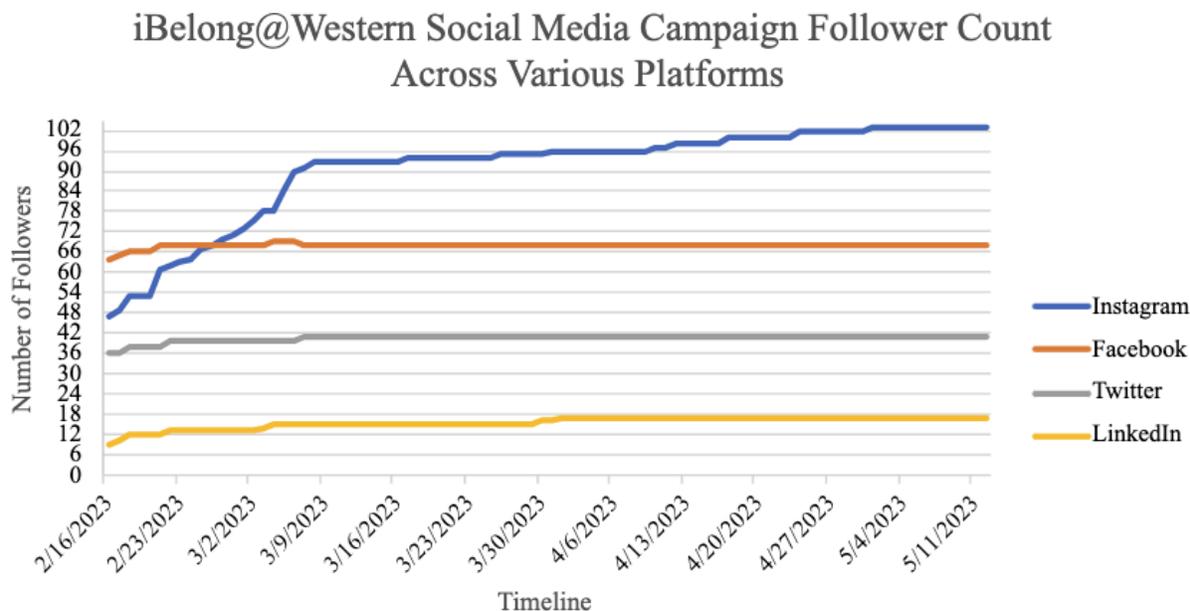
3.2.1 Social Media Analytics – Content Reach

It should be noted that while there were 30 participants in the iBelong@Western study, there were also numerous existing and ‘other’ followers on the iBelong social media accounts. Given the public nature of the social media campaign and our inability to remove non-participants (for ethical reasons and because we did not have access to participant social media handles and therefore could not retain or use participant data only), the total number of followers presented below includes both participants and non-participants.

In total, 30 identical social media posts, including 10 videos, were shared on ibelongstudy accounts on Instagram, Facebook, Twitter, and LinkedIn. Over the course of the recruitment period (February 16, 2023 – March 5, 2023) and the duration of the social media campaign

(March 6, 2023 – May 12, 2023), all social media platforms experienced a growth in new followers. The greatest increase in new followers (i.e., 56, from 47-103) was observed on Instagram, as illustrated in Figure 1.

Figure 1



Note. This figure outlines the total follower growth (including, but not limited to, iBelong@Western study participants) on Instagram, Facebook, Twitter, and LinkedIn from the start of the campaign design (February 16, 2023) to campaign completion (May 12, 2023).

3.2.1.1 Instagram Content Reach

The Instagram social media metrics used to assess content reach, a component of feasibility, were collected using Instagram Insights and recorded on an Excel spreadsheet by JV. The number of followers, as well as the reach, impression, and views for each category of post (Monday Mini-Challenge, Wednesday Wisdom, and Friday Focus) across all 10 weeks of the campaign for Instagram are presented in Table 5. Compared to all other Instagram posts, the Friday Focus post for Week 5, a video featuring members of the Health Studies Students' Association offering tips and strategies for effective studying and group work, had the highest reach ($n = 1,096$) and garnered the most views ($n = 1,201$). Additionally, the Monday Mini-

Challenge post during Week 1, which encouraged students to set S.M.A.R.T social goals, had the highest number of impressions ($n = 104$). Conversely, the Wednesday Wisdom post for Week 2 (highlighting the role of social media in fostering social connectedness among university students) and the Monday Mini-Challenge for Week 9 (prompting students to engage online with a person or group in a meaningful way) had the lowest reach ($n = 47$ each) of all Instagram posts. Additionally, the Wednesday Wisdom posts for Week 4 (focusing on the importance of community engagement) and Week 8 (exploring the social benefits of group-based physical activity for university students) had the lowest number of impressions ($n = 69$ each).

Table 5

Instagram Content Reach Metrics (Followers, Reach, Impressions, and Views) for the 10-Week iBelong@Western Social Media Campaign Posts

Week and Theme	Followers^a (N)	Reach^b (n)	Impressions^c (n)	Views^d (n)
Week 1: Setting “Social” Goals				
Monday Mini- Challenge	90	71	104	N/A
Wednesday Wisdom	93	70	98	N/A
Friday Focus	93	80	N/A ^e	125
Week 2: Belonging@Western				
Monday Mini-Challenge	93	68	101	N/A
Wednesday Wisdom	93	57	85	N/A
Friday Focus	94	83	N/A	141
Week 3: Connecting with Faculty and Staff Members @ Western				
Monday Mini-Challenge	94	59	87	N/A
Wednesday Wisdom	94	47	74	N/A
Friday Focus	94	258	N/A	307
Week 4: Community Connectedness: Belonging Beyond Western				
Monday Mini-Challenge	95	61	82	N/A
Wednesday Wisdom	95	53	69	N/A
Friday Focus	96	76	N/A	130
Week 5: Teamwork Makes the “Studying” Dream Work				

Monday Mini-Challenge	96	57	80	N/A
Wednesday Wisdom	96	52	74	N/A
Friday Focus	96	1096	N/A	1201
Week 6: School/(Social) Life Balance				
Monday Mini-Challenge	97	57	91	N/A
Wednesday Wisdom	98	57	76	N/A
Friday Focus	98	70	N/A	85
Week 7: Belonging and Mental Wellbeing				
Monday Mini-Challenge	100	48	73	N/A
Wednesday Wisdom	100	51	75	N/A
Friday Focus	100	63	N/A	96
Week 8: Belonging and Physical Wellness				
Monday Mini-Challenge	102	54	76	N/A
Wednesday Wisdom	102	48	69	N/A
Friday Focus	102	57	N/A	82
Week 9: Online Social Connectedness				
Monday Mini-Challenge	103	47	70	N/A
Wednesday Wisdom	103	51	79	N/A
Friday Focus	103	269	N/A	317
Week 10: Building a Community of “iBelong Champions”				
Monday Mini-Challenge	103	71	95	N/A
Wednesday Wisdom	103	53	71	N/A
Friday Focus	103	87	N/A	96

Note. Metric definitions for Instagram include the following (Instagram, 2019):

^aFollowers represents the number of individuals who follow the account.

^bReach represents the number of individuals who saw the post.

^cImpressions represents the number of times the post was seen (may include more than one view from the same individual).

^dViews represents the number of times the video was viewed.

^eN/A = not applicable (information was not collected).

3.2.1.2 Facebook Content Reach

The social media metrics for Facebook were collected using Facebook Insights and recorded on an Excel sheet by the student researcher (JV). Again, the number of Facebook followers, as well as the reach, impression, and views for each category of post (Monday Mini-Challenge, Wednesday Wisdom, and Friday Focus) across all 10 weeks of the campaign are presented in Table 6. Throughout the campaign, there was no follower growth, with the follower count remaining at 68. The Wednesday Wisdom post for Week 8, which presented research findings from the iBelong study regarding experiences of online social connectedness among university students, achieved the highest reach ($n = 89$) and impressions ($n = 94$) of all Facebook posts. Conversely, the Friday Focus post during Week 3 (a video featuring the Principal Investigator discussing strategies for establishing meaningful connections with faculty and staff members) had the lowest reach ($n = 7$) but recorded the highest views ($n = 7$). Furthermore, the Friday Focus post videos for Week 1 (Setting "Social" Goals), Week 4 (Community Connectedness: Belonging Beyond Western), Week 5 (Teamwork Makes the "Studying" Dream Work), and Week 6 (School/(Social) Life Balance) consistently garnered the lowest views, with each video recording just one view ($n = 1$). The Friday Focus post for Week 4, a video featuring Off-Campus Sophs (upper-year, undergraduate students that volunteer as mentors for incoming students) sharing ways to get involved in the community had the lowest number of impressions ($n = 1$).

Table 6

Facebook Content Reach Metrics (Followers, Reach, Impressions, and Views) for the 10-Week iBelong@Western Social Media Campaign Posts

Week and Theme	Followers^a (N)	Reach^b (n)	Impressions^c (n)	Views^d (n)
Week 1: Setting "Social" Goals				
Monday Mini-Challenge	68	12	20	N/A
Wednesday Wisdom	68	12	17	N/A
Friday Focus	68	12	15	1
Week 2: Belonging@Western				
Monday Mini-Challenge	68	21	25	N/A

Wednesday Wisdom	68	15	17	N/A
Friday Focus	68	10	12	4
Week 3: Connecting with Faculty and Staff Members @ Western				
Monday Mini-Challenge	68	31	35	N/A
Wednesday Wisdom	68	16	23	N/A
Friday Focus	68	7	12	7
Week 4: Community Connectedness: Belonging Beyond Western				
Monday Mini-Challenge	68	35	39	N/A
Wednesday Wisdom	68	32	33	N/A
Friday Focus	68	8	1	1
Week 5: Teamwork Makes the “Studying” Dream Work				
Monday Mini-Challenge	68	28	32	N/A
Wednesday Wisdom	68	17	18	N/A
Friday Focus	68	10	11	1
Week 6: School/(Social) Life Balance				
Monday Mini-Challenge	68	20	24	N/A
Wednesday Wisdom	68	12	9	N/A
Friday Focus	68	9	10	1
Week 7: Belonging and Mental Wellbeing				
Monday Mini-Challenge	68	78	80	N/A
Wednesday Wisdom	68	64	66	N/A
Friday Focus	68	11	13	2
Week 8: Belonging and Physical Wellness				
Monday Mini-Challenge	68	79	83	N/A
Wednesday Wisdom	68	79	81	N/A
Friday Focus	68	9	10	2
Week 9: Online Social Connectedness				
Monday Mini-Challenge	68	81	84	N/A
Wednesday Wisdom	68	89	94	N/A
Friday Focus	68	9	11	4
Week 10: Building a Community of “iBelong Champions				

Monday Mini-Challenge	68	67	70	N/A
Wednesday Wisdom	68	54	56	N/A
Friday Focus	68	11	3	5

Note. Metric definitions for Facebook are as follows (Facebook, 2023):

^aFollowers represents the number of individuals who follow the account.

^bReach represents the number of unique individuals who viewed the post.

^cImpressions represents the number of times the post was seen (may include more than one view from the same individual).

^dViews represents the number of times the video was viewed.

^eN/A = not applicable (information was not collected).

3.2.1.3 *Twitter Content Reach*

The social media metrics for Twitter were collected using Twitter Analytics and were recorded on an Excel spreadsheet by the student researcher (JV). The number of followers, impression, and views for each category of Twitter post (Monday Mini-Challenge, Wednesday Wisdom, and Friday Focus) across all 10 weeks of the campaign are presented in Table 7 (reach data are not available using Twitter Analytics). Similar to Facebook, there was no follower growth on Twitter throughout the course of the campaign, with the follower count remaining stable at 41. However, specific posts appeared to stand out to followers; in Week 3 for example, the Wednesday Wisdom post (emphasizing the importance of making meaningful connections with faculty and staff at Western University), yielded the highest number of impressions ($n = 187$). On the other hand, the Friday Focus video posted during Week 2 (exploring strategies for enhancing students' sense of belonging on campus) received the lowest number of impressions ($n = 17$) and views ($n = 2$). Similarly, the video posted during Week 6, focusing on achieving a healthy school/social-life balance, also recorded only two views. In contrast, the Friday Focus post for Week 5, featuring students from the Health Studies Association, emerged as the most viewed video ($n = 20$).

Table 7

Twitter Content Reach Metrics (Followers, Impressions, and Views) for the 10-Week iBelong@Western Social Media Campaign Posts

Week and Theme	Followers^a (N)	Impressions^b (n)	Views^c (n)
Week 1: Setting “Social” Goals			
Monday Mini-Challenge	41	61	N/A
Wednesday Wisdom	41	43	N/A
Friday Focus	41	22	5
Week 2: Belonging@Western)			
Monday Mini-Challenge	41	29	N/A
Wednesday Wisdom	41	41	N/A
Friday Focus	41	17	2
Week 3: Connecting with Faculty and Staff Members @ Western			
Monday Mini-Challenge	41	92	N/A
Wednesday Wisdom	41	187	N/A
Friday Focus	41	107	12
Week 4 (Theme: Community Connectedness: Belonging Beyond Western)			
Monday Mini-Challenge	41	118	N/A
Wednesday Wisdom	41	28	N/A
Friday Focus	41	27	10
Week 5 (Theme: Teamwork Makes the “Studying” Dream Work)			
Monday Mini-Challenge	41	38	N/A
Wednesday Wisdom	41	30	N/A
Friday Focus	41	85	20
Week 6 (Theme: School/(Social) Life Balance			
Monday Mini-Challenge	41	31	N/A
Wednesday Wisdom	41	19	N/A
Friday Focus	41	30	2
Week 7 (Theme: Belonging and Mental Wellbeing)			
Monday Mini-Challenge	41	33	N/A

Wednesday Wisdom	41	24	N/A
Friday Focus	41	39	16
Week 8 (Theme: Belonging and Physical Wellness)			
Monday Mini-Challenge	41	36	N/A
Wednesday Wisdom	41	60	N/A
Friday Focus	41	25	7
Week 9 (Theme: Online Social Connectedness)			
Monday Mini-Challenge	41	23	N/A
Wednesday Wisdom	41	20	N/A
Friday Focus	41	28	8
Week 10 (Theme: Building a Community of “iBelong Champions”)			
Monday Mini-Challenge	41	20	N/A
Wednesday Wisdom	41	173	N/A
Friday Focus	41	25	3

Note. Metric definitions for Twitter are as follows (Twitter, 2023):

^aFollowers represents the number of individuals who follow the account.

^bImpressions represents the number of times the post entered a person’s screen (e.g., timeline and search results).

^c Views represents the number of times the video was viewed.

^d N/A = not applicable (information was not collected).

3.2.1.4 *LinkedIn Content Reach*

Again, the social media metrics for LinkedIn were collected using LinkedIn Analytics and recorded on an Excel spreadsheet by JV. The total number of followers, as well as impressions and views (reach data are also not available for LinkedIn) for each category of post (Monday Mini-Challenge, Wednesday Wisdom, and Friday Focus) across all 10 weeks of the campaign as found on LinkedIn are presented in Table 8. There was a modest follower growth throughout the campaign period, increasing from 15 to 17 followers. Interestingly, throughout the 10-week period, the Friday Focus posts which consisted of videos received noticeably lower impressions ($n = 27 - 181$) in comparison to the Monday Mini-Challenge and Wednesday Wisdom posts,

which were presented as infographics ($n = 32 - 668$). In fact, the Wednesday Wisdom post shared during Week 10 (centred around the theme of becoming an “iBelong Champion” and fostering a culture of belonging and wellness at Western and beyond), amassed the highest number of impressions ($n = 668$). The Friday Focus post shared during Week 9 (a video collaboration with the Co-Founder of the Voices of Western podcast), garnered a comparatively modest number of views ($n = 139$). During Week 1, the posts centered around setting social goals received a significantly lower number of impressions ($n = 27-43$) than most other weekly posts, with the Friday video registering the lowest number of impressions ($n = 27$) of all LinkedIn campaign posts.

Table 8

LinkedIn Content Reach Metrics (Followers, Impressions, and Views) for the 10-Week iBelong@Western Social Media Campaign Posts

Week and Theme	Followers^a (N)	Impressions^b (n)	Views^c (n)
Week 1: Setting “Social” Goals			
Monday Mini-Challenge	15	43	N/A
Wednesday Wisdom	15	32	N/A
Friday Focus	15	27	4
Week 2: Belonging@Western			
Monday Mini-Challenge	15	206	N/A
Wednesday Wisdom	15	344	N/A
Friday Focus	15	143	45
Week 3: Connecting with Faculty Staff Members @ Western			
Monday Mini-Challenge	15	285	N/A
Wednesday Wisdom	15	81	N/A
Friday Focus	15	162	36
Week 4: Community Connectedness: Belonging Beyond Western			
Monday Mini-Challenge	15	433	N/A
Wednesday Wisdom	16	499	N/A
Friday Focus	16	40	7
Week 5: Teamwork Makes the “Studying” Dream Work			

Monday Mini-Challenge	17	182	N/A
Wednesday Wisdom	17	233	N/A
Friday Focus	17	85	26
Week 6: School/(Social) Life Balance			
Monday Mini-Challenge	17	397	N/A
Wednesday Wisdom	17	119	N/A
Friday Focus	17	32	4
Week 7: Belonging and Mental Wellbeing			
Monday Mini-Challenge	17	207	N/A
Wednesday Wisdom	17	260	N/A
Friday Focus	17	39	7
Week 8: Belonging and Physical Wellness			
Monday Mini-Challenge	17	541	N/A
Wednesday Wisdom	17	269	N/A
Friday Focus	17	31	5
Week 9: Online Social Connectedness			
Monday Mini-Challenge	17	364	N/A
Wednesday Wisdom	17	227	N/A
Friday Focus	17	181	139
Week 10: Building a Community of “iBelong Champions”			
Monday Mini-Challenge	17	556	N/A
Wednesday Wisdom	17	668	N/A
Friday Focus	17	75	65

Note. Metric definitions for LinkedIn are as follows (LinkedIn, 2023):

^aFollowers represents the number of individuals who follow the account.

^bImpressions represents the number of times the post entered a person’s screen.

^cViews represents the number of times the video was viewed.

^d N/A = not applicable (information was not collected).

3.2.2 Level of Engagement: Total Post Interactions and Engagement Rates

3.2.2.1 *Instagram Engagement*

Table 9 contains data based on the calculations for the total post interactions (i.e., the total number of “likes”, “comments,” and “shares” per social media post; Grantham et al., 2021; Kim et al., 2020; Trunfio & Rossi, 2021) and engagement rate (i.e., level of interaction followers have with the content; Al Aufa et al., 2020) for *each* of the iBelong@Western posts shared on Instagram. The calculations were done manually and recorded on an Excel spreadsheet by JV. Similar to the findings presented above regarding the content reach for Instagram, the Friday Focus post for Week 5 (featuring members of the Health Studies Students’ Association) yielded the highest engagement by followers on Instagram, with 25 total post interactions and an engagement rate of 26.0%. Again, as per Arman and Sidhik (2019), an engagement rate exceeding 8.58% on Instagram is considered high; using this cut-off value, this and 14 other Instagram posts produced high levels of engagement (5 Monday Mini-Challenge posts, 2 Wednesday Wisdom posts, and 7 Friday Focus posts), ranging from 8.7% to 19.2%. Conversely, the Monday Mini-Challenge and Wednesday Wisdom posts shared during Week 8, exploring the social benefits associated with group-based physical activity for university students, yielded relatively lower engagement, with only 5 total post interactions and an engagement rate of 4.90 for each. Interestingly, across all weeks, Friday Focus posts outperformed the Monday Mini-Challenge and Wednesday Wisdom posts, consistently obtaining more interactions and higher engagement rates (or the same in one instance).

Table 9

Level of Engagement (Total Post Interactions and Engagement Rate) on the Instagram iBelong@Western Social Media Campaign Posts

Week: Theme	Total Post Interactions^a (n)	Engagement Rate^b (%)
Week 1: Setting “Social” Goals		
Monday Mini-Challenge	14	15.6
Wednesday Wisdom	14	15.6
Friday Focus	15	16.1

Week 2: Belonging@Western

Monday Mini-Challenge	12	12.9
Wednesday Wisdom	7	7.5
Friday Focus	18	19.2

Week 3: Connecting with Faculty Staff Members @ Western

Monday Mini-Challenge	9	9.6
Wednesday Wisdom	7	7.5
Friday Focus	15	15.9

Week 4: Community Connectedness: Belonging Beyond Western

Monday Mini-Challenge	7	7.4
Wednesday Wisdom	7	7.4
Friday Focus	13	13.5

Week 5: Teamwork Makes the “Studying” Dream Work

Monday Mini-Challenge	9	9.4
Wednesday Wisdom	7	7.3
Friday Focus	25	26.0

Week 6: School/(Social) Life Balance

Monday Mini-Challenge	8	8.3
Wednesday Wisdom	7	7.1
Friday Focus	8	8.2

Week 7: Belonging and Mental Wellbeing

Monday Mini-Challenge	6	6.0
Wednesday Wisdom	7	7.0
Friday Focus	13	13.0

Week 8: Belonging and Physical Wellness

Monday Mini-Challenge	5	4.9
Wednesday Wisdom	5	4.9
Friday Focus	7	6.9

Week 9: Online Social Connectedness

Monday Mini-Challenge	6	5.8
Wednesday Wisdom	6	5.8

Friday Focus	12	11.7
Week 10: Building a Community of “iBelong Champions”		
Monday Mini-Challenge	9	8.7
Wednesday Wisdom	9	8.7
Friday Focus	15	14.6

^aTotal post interactions encompass the combined number of likes, comments, and shares on a post (Grantham et al., 2021; Kim et al., 2020; Trunfio & Rossi, 2021).

^bEngagement rate represents the total number of likes and comments per post divided by the total number of followers, multiplied by 100 (Boediono, 2022; Szeto et al., 2021).

3.2.2.2 *Facebook Engagement*

Data analytics showed that there was no follower engagement on Facebook across all posts during the 10-week social media campaign. As such, total post interactions and engagement rates were not calculated.

3.2.2.3 *Twitter Engagement*

Table 10 contains the calculations for engagement level (i.e., total post interactions and engagement rate) on Twitter for each of the iBelong@Western posts. Again, these calculations were done manually and recorded on an Excel spreadsheet by the student researcher (JV). The total post interactions were low across all posts, ranging from 0 to 2. All posts that were interacted with by followers had an engagement rate above 1%, which is higher than the threshold for ‘good’ engagement (i.e., range of 0.5%-0.99%) according to Allen et al. (2022). Interestingly, the engagement rate on the Week 8 Friday Focus post, a video featuring two Western physiotherapy students highlighting the benefits of group-based physical activity for university students, reached 8.0%, which qualifies as high engagement (> 7%) according to Allen et al. (2017).

Table 10

Level of Engagement (Total Post Interactions and Engagement Rate) on the Twitter iBelong@Western Social Media Campaign Posts

Week: Theme	Total Post Interactions ^a (<i>n</i>)	Engagement Rate ^b (%)
Week 1: Setting “Social” Goals		
Monday Mini-Challenge	2	3.3
Wednesday Wisdom	0	0.0
Friday Focus	0	0.0
Week 2: Belonging@Western		
Monday Mini-Challenge	0	0.0
Wednesday Wisdom	1	2.4
Friday Focus	0	0.0
Week 3: Connecting with Faculty Staff Members @ Western		
Monday Mini-Challenge	1	1.1
Wednesday Wisdom	2	1.1
Friday Focus	2	1.1
Week 4: Community Connectedness: Belonging Beyond Western		
Monday Mini-Challenge	2	1.7
Wednesday Wisdom	0	0.0
Friday Focus	0	0.0
Week 5: Teamwork Makes the “Studying” Dream Work		
Monday Mini-Challenge	0	0.0
Wednesday Wisdom	0	0.0
Friday Focus	1	1.2
Week 6: School/(Social) Life Balance		
Monday Mini-Challenge	0	0.0
Wednesday Wisdom	0	0.0
Friday Focus	2	6.7
Week 7: Belonging and Mental Wellbeing		
Monday Mini-Challenge	0	0.0

Wednesday Wisdom	0	0.0
Friday Focus	1	2.6
Week 8: Belonging and Physical Wellness		
Monday Mini-Challenge	0	0.0
Wednesday Wisdom	0	0.0
Friday Focus	2	8.0
Week 9: Online Social Connectedness		
Monday Mini-Challenge	0	0.0
Wednesday Wisdom	0	0.0
Friday Focus	1	3.6
Week 10: Building a Community of “iBelong Champions”		
Monday Mini-Challenge	0	0.0
Wednesday Wisdom	1	4.0
Friday Focus	0	0.0

^aTotal post interactions encompass the combined number of likes, comments, and retweets on a post (Perera et al., 2010).

^bEngagement rate represents the total number of likes, retweets, and shares per post divided by the total number of impressions, multiplied by 100 (Grantham et al., 2021; Wadhwa et al., 2017).

3.2.2.4 *LinkedIn Engagement*

Table 11 contains data based on the calculations performed by the student researcher (JV) for the total post interactions and engagement rate for each of the iBelong@Western posts on LinkedIn. The total post interactions were low across all post categories for each week, ranging from 0 to 4. The posts with the highest total interactions ($n = 4$ each) among all of the LinkedIn posts were the Monday Mini-Challenge shared during Week 4 (encouraging students to get involved in their local communities during the summer) and the Friday Focus post shared during Week 8 (featuring the Voices of Western podcast and exploring the benefits of online social connectedness for university students). All LinkedIn posts that received interactions from followers yielded engagement rates between 0.2% to 2.5% (i.e., a ‘good’ engagement rate;

Adobe Express, 2022). Two notable posts with high engagement rates were the Friday Focus posts shared during Week 4 (2.5%) and Week 5 (2.4%). Both posts were videos featuring members of the Western community, including Off-Campus Sophs and students from the Health Studies Students' Association. Interestingly, none of the posts shared during Week 7, focused on belonging and mental wellbeing, had any engagement on the LinkedIn platform.

Table 11

Level of Engagement (Total Post Interactions and Engagement Rate) on the LinkedIn iBelong@Western Social Media Campaign Posts

Week: Theme	Total Post Interactions ^a (<i>n</i>)	Engagement Rate ^b (%)
Week 1: Setting “Social” Goals		
Monday Mini-Challenge	1	2.3
Wednesday Wisdom	1	3.1
Friday Focus	0	0.0
Week 2: Belonging@Western		
Monday Mini-Challenge	2	1.0
Wednesday Wisdom	3	0.9
Friday Focus	2	1.4
Week 3: Connecting with Faculty Staff Members @ Western		
Monday Mini-Challenge	2	0.7
Wednesday Wisdom	0	0.0
Friday Focus	2	1.3
Week 4: Community Connectedness: Belonging Beyond Western		
Monday Mini-Challenge	4	0.9
Wednesday Wisdom	1	0.2
Friday Focus	1	2.5
Week 5: Teamwork Makes the “Studying” Dream Work		
Monday Mini-Challenge	1	0.5
Wednesday Wisdom	3	1.3
Friday Focus	2	2.4
Week 6: School/(Social) Life Balance		

Monday Mini-Challenge	2	0.5
Wednesday Wisdom	0	0.0
Friday Focus	0	0.0
Week 7: Belonging and Mental Wellbeing		
Monday Mini-Challenge	0	0.0
Wednesday Wisdom	0	0.0
Friday Focus	0	0.0
Week 8: Belonging and Physical Wellness		
Monday Mini-Challenge	2	0.4
Wednesday Wisdom	3	1.1
Friday Focus	0	0.0
Week 9: Online Social Connectedness		
Monday Mini-Challenge	0	0.0
Wednesday Wisdom	0	0.0
Friday Focus	4	2.2
Week 10: Building a Community of “iBelong Champions”		
Monday Mini-Challenge	1	0.2
Wednesday Wisdom	2	0.3
Friday Focus	0	0.0

^aTotal post interactions encompass the combined number of reactions, comments, and reposts on a LinkedIn post (Prateek, 2018).

^bEngagement rate for LinkedIn is defined as the total number of reactions, comments, and reposts divided by the total number of impressions per post, multiplied by 100 (Weaber, 2020).

3.2.3 Level of Engagement Data Analysis

3.2.3.1 Overall Engagement with Post Categories, by Social Media Platform

Calculations were performed to identify the weekly post categories (i.e., the Monday Mini-Challenge, Wednesday Wisdom, and Friday Focus posts) with the highest and lowest overall levels of engagement, by platform (see Table 12). On Instagram, the Friday Focus posts yielded

the highest overall level of engagement of the three post categories, with an average number of post interactions totalling 15.1 and an overall engagement rate of 14.6%. Interestingly, the knowledge translation-focused Wednesday Wisdom posts yielded the lowest engagement on Instagram, with an average of 7.6 total post interactions and an overall engagement rate of 7.9% which is still considered “good” according to Arman and Sidhik (2018; i.e., engagement rates between 7.58% and 8.58%). Unfortunately, the overall level of engagement with Facebook posts could not be calculated as there were no post interactions or engagement with posts during the campaign period.-Similar to the findings for Instagram, the Friday Focus posts on Twitter were found to have the highest levels of engagement (highest average number of total post interactions = 0.9 and engagement rate = 2.3%). The Wednesday Wisdom posts also had the lowest engagement on Twitter, with an average of 0.3 total post interactions and an engagement rate of 0.4%. Interestingly, the Friday Focus posts were had the least overall engagement on LinkedIn, with an average of 1.1 total post interactions and an engagement rate of 1.0% per week. Instead, the Monday Mini-Challenge posts had the highest average number of total post interactions at 1.5 and an engagement rate of 0.7%.

Table 12

Overall Engagement Level (Total Post Interactions and Engagement Rate) for Post Categories (Monday, Wednesday, Friday) during the 10-week iBelong@Western Social Media Campaign for all Platforms

Post Category	Overall Total Post Interactions		Overall Engagement Rate	
	<i>M</i>	<i>SD</i>	<i>M</i> (%)	<i>SD</i>
Monday Mini-Challenge				
Instagram	8.5	2.8	8.9	3.3
Facebook	0.0	0.0	0.0	0.0
Twitter	0.5	0.8	0.6	1.1
LinkedIn	1.5	1.2	0.7	0.7
Wednesday Wisdom				
Instagram	7.6	2.5	7.9	2.9
Facebook	0.0	0.0	0.0	0.0
Twitter	0.3	0.7	0.4	0.8

LinkedIn	1.4	1.3	0.7	1.0
Friday Focus				
Instagram	15.1	5.1	14.6	5.5
Facebook	0.0	0.0	0.0	0.0
Twitter	0.9	0.9	2.3	2.9
LinkedIn	1.1	1.4	1.0	1.1

Note. Engagement rate is out of 100.

3.2.3.2 *Overall Engagement with Weekly Themes, by Social Media Platform*

A series of calculations were performed to determine the highest and lowest levels of engagement for each week's posts across the four social media platforms (see Table 13). Using Instagram metrics, the Week 1 theme (Setting "Social" Goals) was found to have the highest level of engagement, with an average of 14.3 total post interactions and an engagement rate of 15.8%. In contrast, the Week 8 theme (Belonging and Physical Wellness) was found to have the lowest engagement on Instagram, with an average of 5.7 total post interactions and an engagement rate of 5.6 % (which is below the cut-off for low engagement [7.6%] outlined by Arman and Sidhik [2018]). For Twitter, the Week 3 theme (Connecting with Faculty and Staff Members @ Western) was found to have the highest level of engagement, with an average of 1.7 total post interactions and an engagement rate of 1.1%. In contrast, the Week 5 theme (Teamwork Makes the "Studying" Dream Work) was found to have the lowest engagement on Twitter, with an average of 0.3 total post interactions and an engagement rate of 0.4%. For LinkedIn, the Week 2 theme (Belonging@Western) was found to have the highest level of engagement, with an average total post interactions of 2.3 and an engagement rate of 1.1%. In contrast, the Week 7 theme (Belonging and Mental Wellbeing) yielded no engagement on the LinkedIn platform.

Table 13

Overall Engagement Level (Total Post Interactions and Engagement Rate) for Each Week of the iBelong@Western Social Media Campaign, by Social Media Platform

Week: Theme	Overall Total Post Interactions		Overall Engagement Rate	
	<i>M</i>	<i>SD</i>	<i>M (%)</i>	<i>SD</i>
Week 1: Setting “Social” Goals				
Instagram	14.3	0.6	15.8	0.3
Facebook	0.0	0.0	0.0	0.0
Twitter	0.7	1.2	1.1	1.9
LinkedIn	0.7	0.6	1.8	1.6
Week 2: Belonging@Western				
Instagram	9.0	2.7	13.2	5.8
Facebook	0.0	0.0	0.0	0.0
Twitter	0.3	0.6	0.8	1.4
LinkedIn	2.3	0.6	1.1	0.3
Week 3: Connecting with Faculty and Staff Members @ Western				
Instagram	10.3	4.2	11.0	4.4
Facebook	0.0	0.0	0.0	0.0
Twitter	1.7	0.6	1.1	0.0
LinkedIn	1.3	1.2	0.7	0.7
Week 4: Community Connectedness: Belonging Beyond Western				
Instagram	9.0	3.5	9.4	3.6
Facebook	0.0	0.0	0.0	0.0
Twitter	0.7	1.2	0.6	1.0
LinkedIn	2.0	1.7	1.2	1.2
Week 5: Teamwork Makes the “Studying” Dream Work				
Instagram	13.7	9.9	14.2	10.3
Facebook	0.0	0.0	0.0	0.0
Twitter	0.3	0.6	0.4	0.7
LinkedIn	2.0	1.0	1.4	1.0
Week 6: School/(Social) Life Balance				
Instagram	7.7	0.6	7.9	0.6
Facebook	0.0	0.0	0.0	0.0
Twitter	0.3	0.6	0.9	1.5

LinkedIn	0.7	1.2	0.2	0.3
Week 7: Belonging and Mental Wellbeing				
Instagram	8.7	3.8	8.7	3.8
Facebook	0.0	0.0	0.0	0.0
Twitter	0.3	0.6	0.9	1.5
LinkedIn	0.0	0.0	0.0	0.0
Week 8: Belonging and Physical Wellness				
Instagram	5.7	1.6	5.6	1.1
Facebook	0.0	0.0	0.0	0.0
Twitter	0.7	1.2	2.7	4.6
LinkedIn	1.7	1.5	0.5	0.6
Week 9: Online Social Connectedness				
Instagram	6.3	0.6	7.8	3.4
Facebook	0.0	0.0	0.0	0.0
Twitter	0.3	0.6	1.2	2.1
LinkedIn	1.3	2.3	0.7	1.3
Week 10: Building a Community of “iBelong Champions”				
Instagram	11	3.5	10.7	3.4
Facebook	0.0	0.0	0.0	0.0
Twitter	0.3	0.6	1.3	2.3
LinkedIn	1.0	1.0	0.2	0.2

Note. Engagement rate is out of 100.

3.2.4 Participant Perceptions of Campaign Feasibility

This section provides an overview of the interview participant's reflections on their experience with the 10-week social media campaign. By inquiring about their overall experiences using the semi-structured interview guide, we hoped to uncover valuable insights regarding the campaign's feasibility. The participant was encouraged to share their thoughts on various aspects of the

iBelong@Western campaign, including the content, duration, and frequency of posts, as well as their overall experiences with the campaign.

As noted in the Methods section, given that it was not possible to conduct a full thematic analysis with only one participant, interview responses are summarized and presented based on (and in order of) the questions included in the interview guide. Participant quotes were selected to highlight and convey the participant's experiences, the following of which pertains to campaign feasibility.

3.2.4.1 Overall Experiences With and Thoughts About the iBelong@Western Social Media Campaign

The participant conveyed that they thoroughly enjoyed engaging with the social media campaign, expressing what appeared to be a genuine sense of delight and enthusiasm throughout the interview.

In terms of the social media campaign content, the participant highlighted their appreciation for the visual elements of the posts:

...I personally really like the colours, because it was like a pretty lighthearted study, is what it came across...I liked the content because it was something simple to look at, because sometimes they were like, oh, these were like the results from a study about perceptions of social connectedness.

Regarding the design of the posts, the participant expressed their appreciation for the consistent and visually appealing layouts:

...The graphics were really nice. I really liked them and they were always pretty much the same theme so it was nice to be able to recognize it - because if it's too different every time I feel like I'd be like, oh, I don't know who this is...

The participant also offered two insightful suggestions for future campaigns based on their experiences with the iBelong@Western social media campaign. First, they suggested using a different, more ‘professional-looking’ font for posts (e.g., Times New Roman versus the Montserrat Classic font used for the iBelong@Western campaign) for posts, noting that font choice could impact how the campaign's message is perceived by the audience: “...if the font is more like Times New Roman, not like exactly that, but sometimes, if it’s a bit too rounded...sometimes that does like make up most of the feel of a post...”. Second, the participant recommended incorporating more images featuring real-life people engaging in the recommended Monday Mini-Challenges: “I think having like a person in the picture, like a real person...would make the person seeing it [be] able to relate a little bit more..”. In short, this participant noted that realistic visual representations would not only make the content more relatable, but could also inspire and motivate the target audience to take action.

In terms of the duration and timing of the campaign, the participant noted that ten weeks was acceptable: “I didn’t mind the 10 weeks...you don’t really notice how long it is because it’s on social media. They suggested that starting the campaign at the beginning of the first semester, rather than mid-second semester, would be more effective both in terms of promoting connectedness and reaching/recruiting a greater number of students: “I think the best times are the beginning of a semester... I actually do think a lot of people are on social media during the first semester too, because they're like meeting more people”. The participant also noted that this timing would capitalize on the excitement and anticipation that comes with the start of a new academic year, when students are eager to explore opportunities and meet new people.

When discussing the frequency of posts, the participant also shared insightful feedback. They suggested that, from their perspective, posting less frequently (i.e., two times per week rather than three), might be more ideal for maintaining sustained interest and attention from first-year university students. Specifically, they noted that,

In terms of frequency, three times a week might be a bit much sometimes, because then every time you see it, you're like, oh, another one. And then you wanna like, just scroll to the next one. So, maybe two times a week would be much better.

In terms of accessibility, the participant noted that the social media handle was simple and easy to find. The participant did not share any insights about any of the other accessibility-related features of the campaign (e.g., closed captioning).

3.2.4.2 *Perspectives on Post Categories*

Several questions and prompts were included in the interview guide to explore participants' experiences with, and preferences for, the weekly post categories (i.e., the Monday Mini-Challenges, Wednesday Wisdom, and Friday Focus posts). The participant noted that for them, the Monday Mini-Challenges were the most effective and engaging of all of the weekly posts. They noted that they experienced these interactive challenges to be particularly effective because they enjoyed participating in them, and they also discovered practical applications for these experiences in their everyday lives: “...*The Monday challenges...were honestly the most effective to apply in real life...I really liked how the mini challenges were like super simple to just like, do this once.*” Again, the participant suggested that incorporating examples of ‘real-life people’ engaging in the challenges might further encourage others to participate.

With regard to the Wednesday Wisdom posts, the participant noted that while the content of the research studies shared on these weekly posts felt somewhat repetitive, they appreciated the emphasis on research-based evidence and found them easy to digest due to their concise presentation. Specifically, the shared that, “...*the Wednesdays were pretty easy to look through...the arrows are really easy to like, convey a message...*”.

The purpose of the Friday Focus posts was to share and disseminate resources and opportunities, in video format, related to social connectedness and community engagement that first-year university students might find useful and appealing. With regard to these posts, the participant noted that: “*It was really nice to hear, like actual Western students talking about their experiences... I really liked the guest speakers...like people like joining in, because it was nice to see other people talk about their...different experiences.*”

Insofar as the videos were concerned, the participant did note that some of the videos felt long. They suggested that videos should, ideally, range from 10 to 50 seconds, with the exception of guest interviews where more extensive coverage might be necessary to capture the full conversation. Additionally, while the participant noted that it was valuable to feature guest speakers in the videos, they also noted that,

It just might have been a bit too long for Instagram itself is what I think, but the Friday ones I didn't engage with that much for that reason, but I did like the ones where you showed yourself [the researcher] doing like studying or like showed videos of the campus in the background.

Overall, the participant seemed to indicate that the Monday Mini-Challenges and Friday Focus posts resonated with them the most, in comparison to the Wednesday Wisdom posts which were primarily knowledge-translation posts. However, the participant did also note that the prompts and quick facts throughout all of the posts were the most effective elements of the campaign, particularly when using Instagram: *“I think what resonated with me the most were just the prompts, because it was really easy, because Instagram's always fast. You're scrolling. So it was harder to like set more time aside, for, like a longer video.”*

3.2.4.3 *Perspectives Regarding the Weekly Themes*

The participant expressed their enjoyment of various weekly themes throughout the 10-week social media campaign. The Week 1 theme (Setting “Social” Goals) appeared to stand out for this participant: *“I think it's right for it to be the first week because that kind of like sets the tone for the rest of the weeks”*. The participant also indicated that the Week 2 theme (Belonging@Western) held personal significance as it *“directly relates to the school you go to”*. Interestingly, the participant noted that they actively participated in/responded to the Monday Mini-Challenge during Week 3 (Theme: Connecting with Faculty & Staff Members @Western), by proactively reaching out to a faculty member to discuss their class: *“I liked the connecting with faculty one which I like actually implemented...having this nice like prompt saying like, oh...maybe just give it a try was really nice for me to actually like, have that little push to try it...”*

In addition, the participant indicated that they found the Week 6 theme (School/Social Life Balance) to be beneficial and personally relevant:

I also really liked the school social life balance [theme]. I think that was very related to how I was feeling during that week or during that time in general, just because, like, you can end up getting so caught up with social aspects like friendships.

Lastly, the Week 7 theme (Belonging and Mental Wellbeing) also resonated with the participant, who noted that they found the posts to be both relatable and informative. In their overall assessment, the participant voiced their appreciation for all of the themes presented throughout the campaign, indicating that they also enjoyed their diversity: *“The themes were all great, and they’re all different...which was good, so that you would like stay engaged.”*

3.2.4.4 *Recommendations for Future Research-Focused Social Media Campaigns*

The interview guide also contained questions and prompts with a goal of gathering participant feedback recommendations for improving future evidence-based social media campaigns targeting social connectedness. From a social media platform perspective, notably, the participant indicated that they engaged with the campaign on Instagram primarily, followed by Twitter, LinkedIn, and then Facebook. According to this participant, students typically begin to explore LinkedIn during their first year of university and use Facebook primarily for communicating with school groups.

In terms of the ideal number of slides per post, the participant recommended using three slides per post (the iBelong@Western campaign had anywhere from 3-6 slides per post) for optimal effectiveness and to maintain audience attention: *“I think also not having too many squares [slides], is also helpful. Cause a lot of times people just like stop at the second one or the third one...I think around 3 works.”*

Interestingly, the participant also proposed the idea of conducting a weekly survey to gauge participants' sentiments about and experiences with the posts, with proposed survey questions such as:

How do you feel this week in terms of like social connectedness, belongingness, mental health?', like aspects like that? And then maybe something along the lines of like, 'Are you going to do any of these?' And you can just like check off which month, and then maybe some like, 'Have you ever felt these feelings?'. Something that kind of like shows the emotions and mental health of people throughout the weeks of doing this study, I think, would be pretty cool.

Additionally, the participant suggested exploring and potentially incorporating additional themes that would be particularly interesting and relevant to first-year university students, including those related to religion and the importance of self-care strategies during exam season.

3.2.5 Participant Perceptions of the Campaign's Impact on Social Connectedness

As noted previously, several questions and prompts were included in the semi-structured interview guide to explore and gauge participants' perceptions of the impact of the iBelong@Western social media campaign from a social connectedness perspective.

3.2.5.1 *Exploring Belonging and Social Connectedness: General Experiences and Feelings as a First-Year University Student*

Some of the interview questions centred around the potential challenges that university students might encounter when seeking to connect with others, as well as their overall experiences with belonging and social connectedness during their first year of university. In response, the interview participant shared some of the benefits they experienced during Western's Orientation Week, emphasizing how it provided a unique opportunity for students to engage and cultivate feelings of belonging with students and other members of the campus community. Specifically, the participant noted that,

I did feel a sense of belonging at the beginning of the year, especially cause...at Western the Orientation Week was very well put together in that...everyone was willing to meet everyone else and so everyone was like starting at the same point...

The participant also acknowledged that, despite the excitement of starting a new chapter at university, feelings of homesickness lingered. During these moments, the participant indicated that online modes of communication—such as being able to call or text family and friends—provided them with comfort and support: “...*I was missing home and then you can’t always go in the weekend to see your families and friends...so to be able to call my friends was great...*”. Having said this, the participant also expressed the importance and benefits of in-person interactions and being physically close to others during the first year of university: “*As a first-year student it was good because I was in residence and I know some people that weren’t but, being just in close proximity to other people like physically was really helpful.*”

3.2.5.2 Impact of the Campaign on Perceptions of Belonging and Social Connectedness

By actively participating in the campaign, the participant explained that not only did they gain valuable insights, but they also felt empowered to openly discuss and actively explore the concept of social connectedness with themselves and others. Interestingly, the participant drew comparisons between societal views and discussions surrounding social connectedness and those pertaining to mental health more broadly:

...with this campaign there was a lot of more positive connotations around belongingness...it's also not talked about that much and not just talking about it, but also saying like positive things around it, and like ways to feel social, socially connected. And I think it's changed quite a bit from just being not talked about that much in that sense to now being, it's kind of [goes] hand in hand with like mental health...I think the way that the campaign kept telling us examples of how to get social connectedness was the positive message. Instead of it, just being like talking about it, but also saying what you can do.

The participant noted that although their understanding of the concepts of belonging and social connectedness did not necessarily change over the course of the campaign, the information presented offered valuable insights and opportunities for continuous learning and enhancing their experiences of connectedness with others:

...[The videos were] always fun to like learn a little bit more about belongingness, like what that means, or how you can do more of it, like in the school setting. My perceptions of belongingness they kind of stayed the same in the way that I always knew. It was a good thing to uphold and like continue to put in effort. And it did help me feel more like connected in terms of like my friends, and how I'm feeling.

Chapter 4

4 Discussion

The primary purpose of this study was to develop, implement, and evaluate the feasibility of the 10-week iBelong@Western social media campaign. This campaign was designed using evidence-based approaches, as well as a participatory action framework, to enhance perceptions of social connectedness among first-year university students at Western University in London, Ontario. To explore the campaign's feasibility, several key (quantitative) indicators were observed across four social media platforms (i.e., Instagram, Facebook, Twitter, and LinkedIn): (1) *content reach*, which encompassed metrics such as reach, impressions, and video views; (2) followers' *level of engagement*, measured by total post interactions and engagement rate for each post; (3) the level of engagement for the categories of posts and weekly themes, by platform; and (4) identification of the platform that generated the highest and lowest levels of engagement. In addition, participant perceptions of campaign feasibility (e.g., overall experiences with the campaign, including thoughts about the post categories and themes) and its impact on social connectedness were also explored via a single online interview (qualitative).

To date, numerous social media initiatives outlined in the literature have focused predominantly on promoting positive health behaviours among university students (e.g., Baskerville et al., 2016; Goodyear et al., 2021; Scarapicchia et al., 2015; Wordlaw & Vilme, 2022); unfortunately, only a few have addressed the transition to university, which represents a critical period in the lives of many young people (e.g., Gail & Hanson, 2014; Nalbone et al., 2015; Stone & Logan, 2018; Thomas et al., 2017; Torbjørnsen et al., 2021). To our knowledge, this study is the first to present a comprehensive overview of the design, and to explore the feasibility and participant perceptions, of an evidence-based social media campaign targeting the social connectedness of students who have recently transitioned into their first year of university. In a particularly timely manner, this campaign also takes into account the unique challenges experienced by students as a result of the COVID-19 pandemic, making it further distinct from previous endeavors in the field and critically important insofar as social connectedness is concerned. A number of preliminary findings have been presented in this thesis; for the sake of this Discussion, five important categories of results will be discussed.

First, part of the primary purpose of this study was to *develop* and *implement* an evidence-based social media campaign. These objectives were successfully carried out, with the iterative development phase lasting approximately three months and overlapping with the 10-week implementation phase. In what represents one of our study strengths, the iBelong@Western campaign was carefully designed, with great attention to detail, based on best practices and numerous evidence-based strategies, along with input from 11 students on the iBelong Student Research Council. Together, these approaches resulted in what we feel is a highly relevant product/template that has strong potential as a knowledge translation tool that can be used and adapted in the future to enhance social connectedness among first-year university students (at Western University and beyond).

Second, and from a campaign *evaluation* perspective, our data showed that the iBelong@Western campaign produced over 10,800 impressions across the four social media platforms (demonstrating content reach). Although comparing the number of impressions across different social media platforms proved challenging due to their distinct user bases and functionalities, the high number of impressions indicates the campaign's broad impact and visibility across the social media platforms (e.g., Liu et al., 2021; Rayward et al., 2019). Impressions and reach are two key metrics that provide evidence about the 'performance' of the posts (Mui et al., 2020). In terms of reach metrics, which could only be measured on Instagram and Facebook (such data are not recorded on Twitter or LinkedIn), Instagram was the leading platform, reaching a considerable number of individuals overall ($n = 3,271$) in comparison to Facebook ($n = 931$). Specifically, one Instagram post, a Friday Focus video shared during Week 5 (Theme: Teamwork Makes the 'Studying' Dream Work) garnered the highest reach, reaching 1,094 individuals and amassing 1,021 video views. This surge in reach (increasing from 76 impressions and 130 views on the previous week's Friday Focus post) could be attributed to the guest speakers in the video, who were students from the Western University Health Studies Students' Association (HSSA). The HSSA consists of a group of students who are widely known in the Faculty of Health Sciences at Western University, and have an Instagram following of 798 individuals. Thus, tagging the HSSA in this video likely contributed to high content reach, increasing the visibility and exposure to a wider audience. Similarly, the Friday Focus posts that

featured esteemed members of the Western Community (e.g., the Principal Investigator who spoke in the Week 3 video regarding “Connecting with Faculty and Staff Members @ Western”, and the Co-Founder of the “Voices of Western Podcast” who spoke during Week 9 regarding “Online Social Connectedness”) proved to be highly engaging, reaching over 250 individuals and garnering more than 300 video views each. These metrics provide initial insights regarding the ability of the campaign to resonate with the university community, and also demonstrate the potential benefits of forming strategic partnerships and incorporating known “voices” from across campus to extend the campaign’s reach. Such findings are in line with research that has underscored the value of collaborating with existing community networks, organizations, and influential individuals to tap into broader audiences, foster authentic connections, and evoke a sense of collective ownership among members of the target audience (e.g., Cheung et al., 2021; Raymond-Flesch et al., 2016; Smith et al., 2017; Wang et al., 2017).

The third category of findings that warrants further discussion pertains to the level of follower engagement for posts across the four social media platforms. These data provided preliminary insights into how the iBelong@Western campaign content resonated with the target audience and how followers interacted with the campaign. The data revealed distinct patterns of engagement on each platform. For instance, Instagram had higher levels of total post interactions (ranging from 7-25 total likes, comments, and shares) and engagement rate (ranging from 4.9% - 26.0%) compared to Facebook (no engagement), Twitter (0 - 2 total likes, comments, and retweets; 0.0% - 8% engagement rate), and LinkedIn (0 - 4 total reactions, comments, and reposts; 0.0% - 2.5% engagement rate). Consistent with the findings above, the Friday Focus post for Week 5 (Theme: Teamwork Makes the “Studying” Dream Work) yielded the highest engagement by followers, with 25 total post interactions and an engagement rate of 26.0% on Instagram, and highest engagement by impressions, with 2 total post interactions and a 2.4% engagement rate on LinkedIn. Despite encouraging followers to comment, like, and share posts throughout the campaign (i.e., in the captions provided below all posts), the predominant forms of active engagement observed throughout the 10-week campaign were likes/reactions and shares/retweets, with no comments received on the majority of posts. However, during Week 5, the Friday Focus post had a comment on both Instagram and LinkedIn, in which the Co-Founder of the Voices of Western Podcast expressed gratitude for being featured. It is important to note

that engagement rates tended to be higher on Instagram, rather than on Facebook, Twitter, or LinkedIn. This may have been due to the format of the iBelong@Western social media campaign and its compatibility with the platforms. On Instagram, only one post/‘slide’ is displayed on the screen at a time, prompting users to focus on the content and make a decision to either engage or scroll past the post (Adobe, 2022). Conversely, platforms such as Facebook and Twitter display multiple posts in a continuous feed or on a single pane, which may result in more passive consumption behaviour, leading to lower engagement rates (Greenwood, 2013; Kircova et al., 2021; Pourazad et al., 2023). Additionally, LinkedIn's professional-oriented focus might have contributed to its relatively lower engagement levels, as users may adopt a more selective approach to interact with content related to their academic or career interests (Huang et al., 2019; Utz & Breuer, 2019).

The fourth set of results worth highlighting concerns the level of engagement for each of the unique iBelong@Western weekly themes, as well as the post categories (i.e., Monday, Wednesday, and Friday posts). In short, the level of engagement for the 10 themes varied across platforms, with no clear trends observed. For example, during Week 1, the posts around setting “social” goals had the highest level of engagement on Instagram, whereas on Twitter, the same posts generated relatively low levels of engagement. With regard to the post categories, however, it was apparent that the Friday Focus posts comprised of 1-2 minute ‘real-life’ videos featuring individuals discussing a diverse range of services and opportunities related to social connectedness for students, were the most popular on both Instagram and Twitter. The preference for video posts on Instagram and Twitter may be attributed to several factors. For example, a study conducted by Gabarron et al. (2020) included an analysis of content and features of posts shared on Facebook, Twitter, and Instagram for the Norwegian Diabetes Association, along with users’ engagement with these posts. Findings revealed that posts containing stories and personal interviews yielded significantly higher levels of engagement than text-only posts. In the present study, the Friday videos were designed to feature compelling narratives and authentic personal experiences, in hopes of evoking emotions and establishing a sense of relatability with followers. Similarly, Pederson et al. (2021) reported high engagement and positive comments in response to a social media campaign on the promotion of the human papillomavirus vaccine, particularly for posts featuring personal stories. Again, the Friday Focus

posts in the iBelong@Western social media campaign showcased personal stories and experiences from members of the Western community, which may have contributed to higher levels of engagement in comparison to the Monday Mini-Challenge and Wednesday Wisdom posts, both of which were text-based.

Interestingly, while the Friday Focus posts were found to be the most popular on Instagram and Twitter, they were observed to be the least popular on LinkedIn. As a platform geared toward building professional connections and fostering business relationships, the LinkedIn followers' interests and expectations may differ from those on Instagram and Twitter (Utz & Breuer, 2019). Specifically, LinkedIn user preferences may lean towards content that provides professional information and opportunities, rather than the personal stories or experiences typically found in the Friday Focus video posts. Furthermore, the Wednesday Wisdom posts were found to have the least engagement on both Instagram and Twitter. The Wednesday Wisdom posts were designed using knowledge translation principles (e.g., Granham et al., 2006) in an effort to share research-based insights and information related to social connectedness with a specific target audience (i.e., first-year university students). While valuable and informative, these posts may not have incentivized direct audience engagement in the same manner as the other campaign posts. For example, using the "triggers" (i.e., prompts) recommended by Zhao and colleagues (2020) to promote active engagement among users, the Monday Mini-Challenge posts were purposefully designed to include compelling and student-focused calls-to-action. The Monday Mini-Challenge posts' interactive and participatory nature might have resonated slightly more with followers, encouraging them to actively engage with the campaign.

Lastly, when examining the level of engagement across social media platforms, it became evident that Instagram stood out as the most favoured among the campaign's followers. Our findings revealed that Instagram had higher levels of engagement compared to the other platforms (i.e., Facebook, Twitter, and LinkedIn). Interestingly, the campaign's Facebook posts generated no engagement on any posts throughout the campaign period. These findings are in line with studies documenting Instagram's popularity among young people in Canada (e.g., Mai & Grunzd, 2022; Holmes, 2021; Shane-Simpson et al., 2018). For example, a study by Shane-Simpson et al. (2018) showed that Instagram was the most popular (i.e., had the highest levels of

engagement) among university students in the United States ($n = 663$, aged 18-25), surpassing both Facebook and Twitter in popularity. Holmes (2021) also noted the high prevalence (90.1%) of Instagram use among university students in Ontario ($n = 1,175$). Together, these studies highlight Instagram's significance as a preferred platform for university students, likely contributing to its higher engagement rates in the current campaign. A noteworthy observation is that many of the iBelong@Western campaign posts incorporated images and infographics. This content format also aligns with Instagram's visual and image-oriented platform, setting it apart from Facebook which is mainly used for messaging others (Liminiou et al., 2022).

While the abovementioned engagement metrics provide valuable insights into the feasibility of the iBelong@Western social media campaign, a consideration of participant experiences was deemed equally important in order to gain a deeper understanding of the campaign and its impact on student social connectedness. Despite conducting only one online interview with an iBelong@Western participant, several noteworthy findings emerged from the interview and the participant's valuable insights and experiences. Overall, the participant reported having a positive and enjoyable experience throughout with the 10-week campaign. In terms of post type, the participant noted that they experienced the Monday-Mini Challenges to be the most engaging due to the interactive and participatory nature of these posts. The participant also indicated that the inclusion of members of the Western community in the Friday Focus posts (videos) made the content more relatable, further enhancing the participant's receptiveness to the strategies and tips related to social connectedness that were provided throughout the campaign. The participant also provided valuable suggestions related to content, design, and post frequency, including the use of more 'real-life' people and examples throughout the campaign. With regard to the impact of the campaign, the participant noted that while their *understanding* of social connectedness remained the same, the campaign provided them with valuable knowledge and new opportunities related to social connectedness, on and off campus. The participant also noted that the campaign shed further light on the importance of social connectedness in their lives.

4.1 Implications and Future Directions

As noted previously, to our knowledge, this feasibility study is the first to explore and outline the development, implementation, and evaluation of an evidence-based social media campaign targeting the social connectedness of first-year university students. As such, the study findings hold potential for informing the creation of an effective framework or guide for designing future evidence-based social media campaigns targeting university students. As social media's influence on young people continues to grow, understanding how to effectively disseminate knowledge to this population via various social media platforms is paramount. The preliminary data gathered from this study offer building blocks for crafting more impactful campaigns that can effectively reach and engage young people in the university context.

There are several potential implications associated with this study that should be noted. Firstly, among the four social media platforms used in this campaign, Instagram had the highest levels of engagement; as such, in future, using Instagram as the main social media platform for implementing an evidence-based social media campaign appears to be a reasonable choice. Secondly, the high level of engagement for the Friday Focus posts underscores the advantages of featuring 'real-life' people in a video-based format; such approaches seem to have increased engagement and resonated with followers in our study. This may not be surprising given the widespread appeal of online video content among young people, as highlighted by the growing popularity of platforms such as TikTok (McCashin et al., 2023; Montag et al., 2021). Thirdly, by collaborating with community members and sharing personal stories and experiences, the campaign appeared to resonate with followers, as demonstrated in other successful campaigns documented in the literature (e.g., Grantham et al., 2021; Harding et al., 2019).

Given that this was a small-scale feasibility study, the evidence-based strategies used and found to show promise in this study should be studied further, in larger studies with a greater number of participants. By including a larger and more diverse sample of university students across various contexts, researchers may be able to ascertain the effectiveness of the evidence-based strategies identified in this study. Moreover, assessing the long-term impact of the campaign on participants' perceptions of social connectedness is also an important future direction. These are important future directions given that the use of such evidence-based strategies and approaches

could lead to the creation of effective knowledge mobilization products used to increase social connectedness among young people.

4.2 Strengths and Limitations

There are numerous strengths associated with this study. First, the use of a participatory action research approach (Wadsworth, 1998) was instrumental in the campaign design process. In consulting with members of the iBelong@Western Student Research Council, we were able to engage with university students from diverse backgrounds, who also had a range of experiences as former first-year university students. This approach facilitated the co-creation of campaign content, messaging, and strategies, ensuring that the campaign was tailored to address the needs and preferences of the target audience. Second, the campaign was thoughtfully designed to foster active social media engagement—which has been associated with enhanced social connectedness among university students (Holmes, 2021)—through the development of the Monday Mini-Challenges which provided participants with interactive prompts and activities to engage with others and their communities. The inclusion of such engagement-driven elements (i.e., calls-to-action) were used to promote a dynamic and participatory experience for students, in hopes of facilitating their perceptions and experiences of social connectedness.

A third strength of this study is that all campaign content was evidence-based. By incorporating and disseminating research-informed strategies and information, iBelong@Western followers were exposed to credible information and strategies for enhancing social connectedness, both on and off campus. Additionally, we aimed to communicate research findings using accessible, layperson language, and all videos included closed captioning to facilitate inclusivity. It is also important to note that the timing of the campaign's design and implementation coincided with an ongoing period of transition and adaptation in higher education due to the COVID-19 pandemic. The campaign was strategically designed to accommodate the shift to hybrid learning for many students, providing them with resources and supports for navigating social connections in a rapidly changing educational landscape. Lastly, this evidence-based social media campaign was created in line with the Knowledge-to-Action cycle, with a focus on knowledge synthesis and dissemination (Field et al., 2014).

There are also several important study limitations that should be addressed. The first limitation pertains to participant recruitment, which began during Western University's Spring Reading Week (February, 2023). This time frame posed challenges to recruitment, in that in-person activities (i.e., in-person class announcements) were not possible. The duration of the campaign also began towards the end of the academic year (March, 2023), which coincided with exam preparation for many students. In future, a strategic approach would involve launching the campaign at the start of the academic year (e.g., during Orientation Week), when many students are forming new social connections and seeking ways to engage with their university community (Malau-Aduli et al., 2021; McLean et al., 2022).

Another limitation of this study is the small sample size ($n = 30$). A larger sample size could have provided more robust and comprehensive insights into the campaign's impact on social connectedness among first-year university students. Further, in light of the fact that Western University had implemented COVID-19 vaccination requirements and mask mandates for students attending in-person classes prior to the start of the study (i.e., in late August, 2022), there may be biases and/or population characteristics that warrant consideration when interpreting findings. For example, participants' vaccination status and on-campus presence might have biased the sample in that these individuals may have been more proactive about their health and/or more engaged in campus activities. This could potentially exclude the participation and perspectives of students who were not vaccinated or had limited on-campus involvement. Additionally, some of the suggested mini-challenges involved in-person activities, which might not have been feasible for individuals who were not physically present on campus.

With regard to challenges related to the recruitment of students, another potential limitation pertains to the possibility that pandemic-related trauma and/or fatigue could have prevented students from participating in the study. As highlighted in the literature, the widespread impact of the pandemic, including feelings of loss, uncertainty, isolation, and disrupted routines, has led to varying levels of psychological distress among young people, including university students (e.g., Chen & Lucock, 2022; Gómez-García et al., 2022; Marconcin et al., 2022). Students grappling with pandemic-related trauma might have experienced heightened emotional distress (Straup et al., 2022; Van der Hallen & Godor, 2022), making it challenging to engage in

activities requiring cognitive or emotional investment, such as interacting with social media content. In addition, excessive use of technology and digital platforms during the pandemic, for online classes, remote work, and/or communication, has been found to increase digital fatigue (Amponsah et al., 2022; Romero-Rodríguez et al., 2023). As such, some students might have been hesitant to commit to engaging with additional online content.

Unfortunately, given the public nature of the campaign, we were unable to decipher between participants and non-participants in the account ‘follower’ counts across platforms, making it difficult to differentiate their engagement and responses using the social media metrics. Of course, this could have influenced the quantitative data interpretation and analysis, potentially impacting the assessment of the campaign's feasibility. Furthermore, the fact that we had only one participant interview limited our ability to draw any definitive conclusions regarding the campaign's impact on social connectedness; conducting additional interviews with a more diverse and representative group of participants would have allowed for a more comprehensive understanding of the campaign's preliminary effectiveness in this regard. Lastly, another limitation pertains to the personal bias and subjectivities of the student researcher (JV) who conducted the interview, as the interviewer's pre-existing beliefs, perspectives, and experiences may unconsciously influence the data collection process, potentially shaping the representation of the participant's responses (Pannucci & Wilkins, 2010).

4.3 Conclusion

This thesis provides a comprehensive overview of the development, implementation, and evaluation of a 10-week, evidence-based social media campaign designed to enhance the social connectedness of first-year university students. Findings provide initial support for the conclusion that the iBelong@Western social media campaign represents a feasible approach to engaging and reaching first-year students, with the potential to enhance their perceptions of belonging and connectedness. This study might also serve as a valuable resource for researchers and educators seeking to develop and use social media campaigns in the promotion of health and wellbeing among students during their transition to university. As we continue to explore and refine the use of social media in the promotion of health and wellbeing among university

students, this research offers support for the potential use of digital platforms in shaping healthier, more connected campus communities.

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Appendices

Appendix A: Notice of Ethics Approval



Date: 16 February 2023

To: Dr. Shauna Burke

Project ID: 121680

Study Title: iBelong@Western: The development, implementation, and evaluation of an evidence-based social media campaign designed to enhance social connectedness among first-year university students

Short Title: iBelong@Western: A social media campaign designed to enhance social connectedness among university students

Application Type: NMREB Initial Application

Review Type: Delegated

Full Board Reporting Date: 03/Mar/2023

Date Approval Issued: 16/Feb/2023

REB Approval Expiry Date: 16/Feb/2024

Dear Dr. Shauna Burke

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the WREM application form for the above mentioned study, as of the date noted above. NMREB approval for this study remains valid until the expiry date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review.

This research study is to be conducted by the investigator noted above. **All other required institutional approvals and mandated training must also be obtained prior to the conduct of the study.**

Documents Approved:

Document Name	Document Type	Document Date	Document Version
iBelong@Western Focus Group Guide	Focus Group(s) Guide	14/Dec/2022	
3. iBelong@Western Social Media Campaign Set-Up Instructions	Online Survey		
7. iBelong@Western Social Media Questions	Online Survey		
4. iBelong@Western Social Media Campaign Weekly Draws & Consent Page	Implied Consent/Assent	08/Feb/2023	2
iBelong@Western Email Scripts	Recruitment Materials	08/Feb/2023	2
iBelong@Western Additional Recruitment Materials	Recruitment Materials	08/Feb/2023	2

Document Name	Document Type	Document Date	Document Version
iBelong@Western Website Ad	Recruitment Materials	08/Feb/2023	2
5. iBelong@Western LOI - Focus Groups & Consent Section	Implied Consent/Assent	08/Feb/2023	2
2. iBelong@Western LOI - Full Study & Social Media Campaign Consent Section	Implied Consent/Assent	08/Feb/2023	2
iBelong@Western Video Script Sample	Study Instruments	14/Feb/2023	1
6. iBelong@Western Participant Information	Online Survey	14/Feb/2023	3

Documents Acknowledged:

Document Name	Document Type	Document Date	Document Version
1. iBelong@Western Screening Questions	Screening Form/Questionnaire	08/Feb/2023	2
iBelong@Western Posting Schedule	Supplementary Tables/Figures	08/Feb/2023	2

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario. Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB. The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Please do not hesitate to contact us if you have any questions.

Sincerely,

Ms. Katelyn Harris, Research Ethics Officer on behalf of Dr. Randal Graham, NMREB Chair

Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations).

Appendix B: Study Amendments



Date: 6 June 2023

To: Dr. Shauna Burke

Project ID: 121680

Study Title: iBelong@Western: The development, implementation, and evaluation of an evidence-based social media campaign designed to enhance social connectedness among first-year university students

Application Type: NMREB Amendment Form

Review Type: Delegated

Full Board Reporting Date: 07/Jul/2023

Date Approval Issued: 06/Jun/2023 17:20

REB Approval Expiry Date: 16/Feb/2024

Dear Dr. Shauna Burke,

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the WREM application form for the amendment, as of the date noted above.

Documents Approved:

Document Name	Document Type	Document Date	Document Version
5.1 iBelong@Western LOI - Interview & Consent Section	Verbal Consent/Assent	05/Jun/2023	1
iBelong@Western Interview Guide	Interview Guide	05/Jun/2023	1
iBelong@Western Interview Verbal Consent Section	Verbal Consent/Assent	05/Jun/2023	1

Documents Acknowledged:

Document Name	Document Type	Document Date	Document Version
iBelong@Western Study Update Email	Information Update Letter	05/Jun/2023	1

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario. Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB. The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Please do not hesitate to contact us if you have any questions.

Sincerely,

Ms. Katelyn Harris, Research Ethics Officer on behalf of Dr. Randal Graham, NMREB Chair

Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations).

Document Name	Document Type	Document Date	Document Version
iBelong@Western Website Ad	Recruitment Materials	08/Feb/2023	2
5. iBelong@Western LOI - Focus Groups & Consent Section	Implied Consent/Assent	08/Feb/2023	2
2. iBelong@Western LOI - Full Study & Social Media Campaign Consent Section	Implied Consent/Assent	08/Feb/2023	2
iBelong@Western Video Script Sample	Study Instruments	14/Feb/2023	1
6. iBelong@Western Participant Information	Online Survey	14/Feb/2023	3

Documents Acknowledged:

Document Name	Document Type	Document Date	Document Version
1. iBelong@Western Screening Questions	Screening Form/Questionnaire	08/Feb/2023	2
iBelong@Western Posting Schedule	Supplementary Tables/Figures	08/Feb/2023	2

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario. Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB. The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Please do not hesitate to contact us if you have any questions.

Sincerely,

Ms. Katelyn Harris, Research Ethics Officer on behalf of Dr. Randal Graham, NMREB Chair

Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations).

Appendix C: Social Media Campaign Posts

Figure 1

Slide 1



Slide 2



Slide 3



Slide 4



Slide 5



Slide 6



Note. This figure displays the slides from Week 1's Monday Mini-Challenge post, centered around the theme of "Setting 'Social' Goals."

Figure 2

Slide 1

Wednesday Wisdom

The importance and benefits of
COMMUNITY ENGAGEMENT
FOR UNIVERSITY STUDENTS

@ibelongstudy
#BelongatWestern

Slide 2

Research shows that
community engagement can help
university students:

- Expand their social circles and connect with others in a meaningful way
- Experience a stronger sense of self and belonging in the community
- Relieve academic stress and improve work-life balance

@ibelongstudy
#BelongatWestern

Slide 3

Research also shows that
university students who volunteer in the community
tend to have:

- ↑ self-confidence
- ↑ interpersonal skills (e.g., leadership, communication, teamwork)
- ↑ satisfaction with their university
- ↑ experiences and skills that are useful for future job opportunities

@ibelongstudy
#BelongatWestern

Slide 4

TIPS
FOR MEANINGFUL COMMUNITY
ENGAGEMENT:

- CLEAR COMMUNICATION**
Before getting involved, be sure to ask about and understand the organization's goals and the ways in which you can contribute.
- BE OPEN TO LEARNING AND FEEDBACK**
Be willing to listen, respond to constructive feedback, and identify areas where you can learn and grow. This can lead to a more productive and positive engagement experience for all.
- EMBRACE EQUITY, DIVERSITY, AND INCLUSION**
Recognize the importance of equity, diversity, and inclusion in all aspects of community engagement. Embracing the knowledge, experiences, and perspectives of individuals from all backgrounds is integral to true engagement and can increase feelings of belonging and connection.

@ibelongstudy
#BelongatWestern

Note. This figure displays the slides from Week 4's Wednesday Wisdom post, centered around the theme of "Community Connectedness: Belonging Beyond Western."

Figure 3

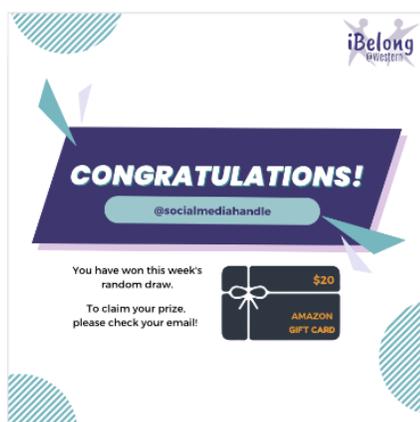
Slide 1



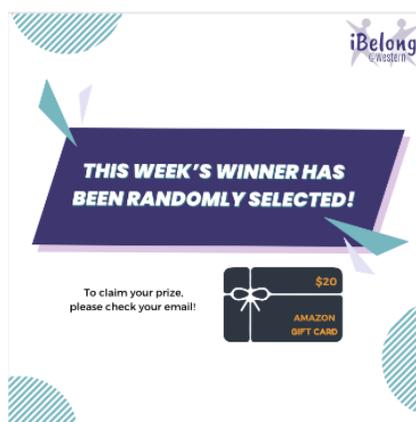
Slide 2



Slide 1



Slide 2



Note. This figure displays the slides for the Introduction post, along with example posts used to announce the winner weekly of the weekly draws.

Appendix D: Recruitment Materials

The planned recruitment period will be dependent on ethical approval but planned tentatively for February 9, 2023 (or earlier if approved) – March 5, 2023.

Template/sample study page(s)/posts to be created and shared on the “ibelongstudy” webpage (<https://ibelongstudy.com/>), social media accounts (e.g., Instagram, Facebook, Twitter, LinkedIn, etc.), researcher (personal) social media accounts, iBelong@Western Student Research Council student (personal) social media accounts, and first-year class announcements online (e.g., via OWL) and in-person. **Comments will be disabled but posts will be made shareable. Images/wording may need to be slightly altered/tweaked for different platforms.*

iBelong Website (<https://ibelongstudy.com/>):

The following information will be posted on the ibelongstudy.com site page with sliding images related to social connectedness (e.g., students holding hands, students on their phones using social media, etc.—see current webpage for images); please note that the visual format of the post and the sliding images may change as required based on the website layout, etc.

**ARE YOU A 1ST -YEAR UNIVERSITY STUDENT AT WESTERN UNIVERSITY
(MAIN CAMPUS)?**

Dr. Shauna Burke and colleagues would like to invite you to invite you to participate in a 10-week social media campaign called "iBelong@Western"!

This campaign is designed to enhance social connectedness among 1st-year university students.



Please click below for more information:

"iBelong@Western" Study Info and Link



Draws to win \$20 Amazon gift cards every week

About the iBelong@Western Study:

Dr. Shauna Burke, Master’s student Julie Vo, and a team of researchers from Western University are conducting a study called “**iBelong@Western**”, designed to enhance social connectedness among 1st-year university students at Western University. Participation in this innovative study includes following a 10-week evidence-based social media campaign on Instagram, Facebook, Twitter, and/or LinkedIn (from March 2023 – May 2023) and, if you are interested, taking part in an optional online focus group (in May 2023).

In order to participate in this study, you must: (a) be enrolled (currently) as a full-time or part-time 1st-year university student attending Western University (main campus); (b) be a regular user of at least one of the following social media platforms: Instagram, Facebook, Twitter, and/or LinkedIn; (c) have access to the Zoom video-conferencing platform; (d) be proficient in English; and (e) provide consent to participate.

For more information or if you would like to participate in the **iBelong@Western** study, please scan the QR code click the link below:

https://uwo.eu.qualtrics.com/jfe/form/SV_7UlcuAyLOEXLLy6

Draws for Amazon gift cards will be held every Friday for 10 weeks during the campaign. For additional draw details and guidelines, please visit the iBelong@Western Weekly Draws tab on ibelongstudy.com.

Invitation to Participate:

First-year university students at Western University (main campus) are being invited to take part in the iBelong@Western research study; a study investigating the implementation of (and students' thoughts about) a 10-week, evidence-based social media campaign designed to enhance social connectedness among 1st-year university students. To learn more and/or to participate in the study, click the survey link below: [Purple box with Qualtrics survey link]

[iBelong@Western Weekly Draws \(there will be a tab on the website outlining social media compliance guidelines for the weekly draws\):](#)

Draw details and guidelines:

Draws for a total of ten e-gift cards will take place every Friday during the 10-week social media campaign (March 2023 – May 2023). If you would like to participate, you will be asked to provide your email address to be entered into the weekly draws to win a \$20 Amazon e-gift card. For any draw, the odds of winning a prize depend on how many people are entered in the draw; although we do not know how many will enter (and therefore cannot predict the odds of winning), it is estimated that there will be approximately 100 to 450 participants entered into each weekly draw. Study participants and non-participants are permitted to enter the draw (upon request) by emailing the research team. For those participating in the research study, entry into the weekly draws is optional. You are not required to pay money or any other valuable consideration to participate in the draw.

Social media platform guidelines pertaining to draws:

- Instagram: <https://help.instagram.com/179379842258600>
 - The weekly draws are in no way sponsored, endorsed or administered by, or associated with, Instagram
 - You are not encouraged to inaccurately tag content
- Facebook:

https://www.facebook.com/policies_center/pages_groups_events/#:~:text=Do%20not%20provide%20your%20Page,when%20their%20purposes%20are%20dissimilar.

- You must: (a) fully release and hold Meta harmless from liability, and (b) acknowledge that the promotion is no way sponsored, endorsed, administered by, or associated with Meta
- Engagement is optional, you are not required to share, repost, or tag others
- Twitter: <https://help.twitter.com/en/rules-and-policies/twitter-contest-rules>
 - Anyone found using multiple accounts to enter will be ineligible
 - No duplicate updates of content (links or tweets) are required (e.g., participants do not need to retweet or share the posts multiple times in order to win the prize)
- LinkedIn: <https://www.linkedin.com/legal/user-agreement>
 - The weekly draws are in no way sponsored, endorsed or administered by, or associated with, LinkedIn
 - Engagement is optional, you are not required to share, repost, or tag others

Online & In-Person Classroom Announcement Poster:

The following will be posted online (e.g., via class OWL sites) and shared on the screen for in-person classroom announcements:

ARE YOU...

- ✓ Enrolled as a full-time or part-time 1st-year university student?
- ✓ Studying at Western University (main campus)?

Click the link in the description or use this QR code to learn more

YOU ARE INVITED TO PARTICIPATE

In a 10-week evidence-based social media campaign designed to enhance social connectedness among 1st-year university students

AND

An optional online 60-90 minute focus group at the end of the social campaign to share your experiences

iBelong@Western

@ibelongstudy

in f o t

Posted description for online announcements:

Dr. Shauna Burke, Master’s student Julie Vo, and a team of researchers from Western University are conducting a study called “**iBelong@Western**”. The purpose of this study is to implement and evaluate a 10-week, evidence-based social media campaign (on Instagram, Facebook, Twitter, and LinkedIn) designed to enhance social connectedness among 1st-year university students. This study includes following the social media campaign on at least one social media platform from March 2023 - May 2023 and participating in an optional online focus group in May 2023.

Example of Social Media Posting (Instagram, Facebook, Twitter, and LinkedIn):



Caption (Instagram, Facebook, LinkedIn):

Attention 1st-year university students! You are being invited to take part in the “**iBelong@Western**” research study, which consists of a 10-week social media campaign that aims to enhance social connectedness among 1st-year university students at Western University. As a participant, you will be asked to follow the “**ibelongstudy**” account on Instagram, Facebook, Twitter, and/or LinkedIn (from March – May 2023) and to participate in an optional online focus group (in May 2023). We will also hold weekly draws for \$20 Amazon e-gift cards!* Scan the QR code or click the survey link in the bio to participate and/or learn more!

**Please visit the ibelongstudy.com for additional draw details and guidelines.
(Tag the ibelongstudy research team, Western University, Faculty of Health Sciences, etc.)*

Caption (Twitter):

Attention 1st-year @WesternU university students! You are invited to take part in a 10-week #socialmediacampaign called “**iBelong@Western**”, designed to enhance #socialconnectedness and #belonging among 1st-year #universitystudents. Click the link in the bio to learn more!
(Tag the ibelongstudy research team, Western University, Faculty of Health Sciences, etc.)

In-Person Recruitment Stickers:

Stickers (see below for sticker image) will be distributed by students from the iBelong@Western Student Research Council, members of the research team, and other student volunteers at the University Community Centre, where they will also inform interested students about the study.



(Tentative) Script for Students – Please note that while this is a template, students will add their own greetings and provide additional study details as requested/deemed necessary:

Hi there,

Are you a first-year university student? If so, are you interested in participating in a social media campaign designed to promote social connectedness among 1st-year students at Western?

Here is a sticker about the iBelong@Western study, created by Dr. Shauna Burke and other researchers here at Western. Participation in this study includes following a 10-week social media campaign (from March 2023 – May 2023) and taking part in an optional online focus group (in May 2023). You can also win a \$20 Amazon gift card for participating!

If you are interested, please look up the ibelong study on one of the platforms on the sticker; there will be a QR code and link to a Qualtrics survey on all of these platforms.

Thank you for your time!

Appendix E: Full iBelong@Western Online Survey

iBelong@Western: Screening Questions

Welcome to the iBelong@Western Research Study!

1. Are you currently enrolled as a **1st-year university student** attending Western University (main campus)?

- Yes
- No

2. Are you a **regular user*** of at least one of the following social media platforms: Instagram, Facebook, Twitter, and/or LinkedIn?

*(*A “regular” social media user is defined as someone who frequently uses social media to keep in contact with family and friends, share content publicly, and follow current events.)*

- Yes
- No

3. Do you have access to the Zoom Video-Communications platform?

- Yes
- No

4. Are you proficient in English?

- Yes
- No

*[If **No** is selected for any of the above questions, potential participants will receive the following message: “Thank you for your interest in the **iBelong@Western** study. Unfortunately, you are not eligible to participate in the study. Thank you for your time.” These individuals will not be able to proceed with the survey.]*

*[If **Yes** is selected for all of the questions, participants will receive the following message: “Congratulations, you are eligible to participate in the **iBelong@Western** study!”. These individuals will be able to continue the survey by clicking “**Next**”, and will be directed to the LOI –Full Study and Social Media Campaign Consent Page.]*

iBelong@Western Letter of Information – Full Study

Welcome to the iBelong@Western Research Study

Full Title: iBelong@Western: The development, implementation, and evaluation of an evidence-based social media campaign designed to enhance social connectedness among first-year university students

Thank you for your interest in participating in the iBelong@Western research study. Before you decide whether to participate, the investigators would like you to read some important information about the study. If you choose to participate, the “consent” button can be found at the end of this letter of information.

**Please note that this survey is best displayed on a laptop or desktop computer. Some features may be less compatible for use on a mobile device.*

If you would like to save this letter of information, please click here:

https://docs.google.com/document/d/1Tyida5RC8ECRAN1XTt9jfe_NM4va2E3el_rLoJKQhU/edit?usp=sharing

Invitation to Participate

You are being invited to take part in the **iBelong@Western** research study; a study investigating the implementation of (and students’ thoughts about) an evidence-based social media campaign designed to enhance social connectedness among first-year university students at Western University.

Purpose of the Letter

The purpose of this letter is to provide you with the information required for you to make an informed decision regarding participation in this research study.

Purpose of this Study

The purpose of this study is to develop, implement, and evaluate the feasibility and preliminary effectiveness of an evidence-based social media campaign targeting the social connectedness of first-year university students in London, Ontario, Canada.

Inclusion Criteria

In order to participate in this study, students must: (a) be enrolled (currently) as a first-year university student at Western University (main campus); (b) be regular* users of at least one of the following social media platforms: Instagram, Facebook, Twitter, and/or LinkedIn; (c) have access to the Zoom Video-Communications platform; (d) be proficient in English; and (e) provide consent to participate.

**For the purpose of the present study, a “regular” social media user refers to those who frequently use social media to remain in contact/keep up with family and friends, share content publicly, and follow current events (Statistics Canada, 2021).*

Exclusion Criteria

Participants will be excluded if they: (a) are not enrolled as a first-year university student at Western University (main campus); (b) are not regular users of at least one of the following social media platforms: Instagram, Facebook, Twitter, and/or LinkedIn; (c) do not have access to the Zoom Video-Communications platform; (d) are not proficient in the English language; and (e) do not provide consent.

Study Procedures

Social Media Campaign and Participant Survey/Consent

If you agree to participate in the **iBelong@Western** study, you will be asked to provide consent and to complete a brief survey containing questions about yourself (e.g., age, gender, which campus you attend, etc.) and your social media habits. The survey should take approximately 10 minutes to complete. You will also be asked to follow the “ibelongstudy” account on at least one of the following social media platforms:

- Instagram: <https://www.instagram.com/ibelongstudy/>
- Facebook: <https://www.facebook.com/iBelongStudy>
- Twitter: <https://twitter.com/ibelongstudy>
- LinkedIn: <https://www.linkedin.com/in/ibelong-study-930b201a5>

The social media campaign will consist of three weekly posts on Instagram, Facebook, Twitter and LinkedIn during a 10-week period (from March 2023-May 2023). The three posts will consist of: 1) Mondays - a mini challenge or action prompt that encourages students to connect with others online or in-person; 2) Wednesdays - an educational post using evidence-based research findings to inform students of topics related to social connectedness; and 3) Fridays - a resource post sharing support, services, and unique opportunities for students to connect with others. Each week will adhere to a *weekly theme* that aims to promote social connectedness (for example, belonging and wellness, setting “social” goals, etc.).

Optional Focus Group

In May 2023, following the social media campaign, you will have the **option** to participate in one 60-90 minute online focus group held in groups of 4-6 students using the Zoom Video Communications platform. The general purpose of these focus groups is to explore first-year university students’ experiences with the social media campaign and thoughts about social connectedness. You may also be asked about your preferences (like/dislikes) related to the social media campaign, as well as suggestions/general feedback, and possible improvements that can be made to guide the direction of future research in this area.

If you provide consent to participate in a focus group, you will be asked to provide your email address. An email will be sent in April or May, 2023 with a Focus Group Letter of Information and to schedule the focus group (a range of dates and times will be provided). After you have provided your availability, an email will be sent with a confirmed date and time and the Zoom link, in addition to information about the assigned participant ID that will be used for the focus groups (rather than your name, as outlined below). You will also be re-sent the Letter of Information about the focus groups at this time. If there are scheduling difficulties/conflicts, we may need to contact you again to select another date/time.

Possible Risks and Harms

There may be unforeseen potential risks associated with engaging in the study, such as information leakage and data breaches. To mitigate such risks, the research team will routinely monitor the social media accounts and ensure that up-to-date firewall and antivirus software has been installed in all devices for members of the research team handling the research data. In the case that an inappropriate comment is made by a participant on any social media platform, the individual (if identifiable) will immediately be blocked on the social media site and across all platforms when possible.

While there are no foreseeable risks associated with participating in the focus groups, answering some of the questions could elicit difficult or negative thoughts and emotions in some individuals. Thus, we have included a list of local, provincial, and national mental health and counselling-related services available to first-year university students at the end of this letter. If there is inappropriate conduct or behaviour from a participant (as determined by the focus group moderator) during a focus group, the individual will be immediately removed from the Zoom meeting by the focus group moderator(s). The research team will ensure the use of password-protect Zoom sessions that are limited to Western users only, and all focus group sessions will be locked to prevent anyone new from joining. Participant privacy and confidentiality will be deliberately considered for data collection, storage, and electronic transfer.

Possible Benefits

While there may be no direct benefits associated with participation in this research study, study participants will have access to online information about social connectedness, as well as prompts/opportunities to connect with others and supports and resources available on campus. As such, participation in the research study may contribute to enhanced feelings of social connectedness for first-year university students. Lastly, student opinions and preferences will be used to inform and support future research in this important area.

Compensation

Draws for a total of ten e-gift cards will take place every Friday during the 10-week social media campaign (March 2023 – May 2023). If you would like to participate, you will be asked to provide your email address to be entered into weekly draws to win a \$20 Amazon e-gift card. For any draw, the odds of winning a prize depend on how many people are entered in the draw; although we do not know how many will enter (and therefore cannot predict the odds of winning), it is estimated that there will be approximately 100 to 450 participants entered into each weekly draw. Study participants and non-participants are permitted to enter the draw (upon request) by emailing the research team. For those participating in the research study, entry into the weekly draws is optional.

If you win one of the weekly draws, you will be notified by email. Given the public nature of social media, consent will also be obtained to publicly announce your social media handle(s) on all four platforms if you are drawn as a winner (again, this is optional). Participants who do not wish to have their social media handle(s) publicly announced should they be randomly drawn as a winner will still be able to participate in the weekly draws; they will simply be notified by email that they have won an e-gift card.

Voluntary Participation

Your participation in this study is voluntary. You may decide not to be in this study at any time. Even if you consent to participate, you have the right to not answer individual questions or to withdraw from the study at any time. If you choose not to participate or to leave the study, it will have no effect on you/your academic standing. You do not waive any legal rights by consenting to this study. In the event you choose to withdraw from the study, we cannot guarantee that comments made on social media, or comments shared during the focus group session (for those who participate), will be removed from the social media campaign or researchers' records given the public nature of social media and the difficulties in reliably tracking who said each comment in focus groups.

Confidentiality

We are collecting some sensitive information. Some participant information (e.g., gender, age, ethnicity, current living situation, social media behaviours, etc.) will be collected through a brief survey hosted on a secure online survey platform called Qualtrics. Qualtrics uses encryption technology and restricted access authorizations to protect all data collected. In addition, Western's Qualtrics server is in Ireland, where privacy standards are maintained under the European Union safe harbour framework. The data will then be exported from Qualtrics and securely stored on a Western University server. All data collected will remain confidential and accessible only to the investigators of this study. While we will do our best to protect your information, there is no guarantee that we will be able to do so.

Email addresses are being requested for contact purposes only. They will be used to notify winners of the incentive (weekly draws) if consent is provided. Social media

handle(s) will also be used to announce the winner on all social media platforms if consent is provided. Email addresses and social media handle(s) will be destroyed once the prizes are awarded. Study participants may be identifiable via their social media handles (e.g., as “followers” of the social media campaign). Participants can choose to delete their own comments and remove likes from the social media posts, otherwise participants’ individual and voluntary engagement activity (e.g., likes, comments, shares, etc.)--may be publicly visible indefinitely, even after the social media campaign period (although some posts and engagement activity may be deleted/edited as deemed appropriate/necessary).

Email addresses are also being requested to provide information about focus group scheduling, unique participant IDs and information about the focus groups. Names, email addresses, or other potentially identifiable information will not be used for research purposes. In addition, Participant IDs used for research purposes (for example, using participant quotes in research studies) will be different from the Participant IDs used in Zoom focus groups so as to not identify participants. The research team will have access to the aggregated data and identifiable (i.e., email addresses) and de-identified (i.e., unique IDs) descriptors.

All study data will be retained for approximately 7 years, as per regulatory guidelines (e.g., granting agency guidelines, Western ethical guidelines), after which the electronic data will be deleted from the password-protected computers on which they were stored. The social media posts on Instagram, Facebook, Twitter, and LinkedIn may be publicly visible indefinitely, even after the social media campaign has formally ended (although some posts may also be deleted/edited as deemed appropriate/necessary).

After a minimum of 7 years, all data will be destroyed. By participating in this research, you agree that the results may be used for scientific purposes, including publication in scientific journals. You do not waive any legal rights by consenting to this study. The results of the study will be reported without identifying you personally, thus maintaining your confidentiality. Representatives of The University of Western Ontario Non-Medical Research Ethics Board may contact you or require access to your study-related records to monitor the conduct of the research.

Contacts for Further Information

If you require any further information regarding this research project or your participation in the study, you may contact study Co-Investigator (Masters Student), Ms. Julie Vo or Principal Investigator, Dr. Shauna Burke.

If you have any questions about your rights as a research participant or the conduct of this study, you may contact The Office of Human Research Ethics. This office oversees the ethical conduct of research studies and is not part of the study team. Everything that you discuss will be kept confidential.

Publication

If the results of the study are published, your name will not be used. If you would like to receive a copy of any potential study results, please email Co-Investigator (Masters Student), Ms. Julie Vo or Principal Investigator, Dr. Shauna Burke.

Consent

Prior to participating in this study, you will be asked to provide consent for various aspects of this study (social media campaign, weekly draws, and optional focus group). If you do not provide consent to participate in the social media campaign and online survey, you will not be able to proceed. All other parts of this study (e.g., focus group, incentive draws) are optional.

Thank you for reviewing this information. Please see below for consent options.

[The social media campaign consent section will appear on the same page once participants scroll down.]

Social Media Campaign Consent Section

[After meeting the eligibility requirements and reviewing the LOI – Full Study, participants will be presented with the social media campaign consent questions on the same page.]

Thank you for considering participation in this study.

Below are two choices related to your willingness to participate in the **iBelong@Western** research study, which involves completing this survey and following the 10-week social media campaign. A reminder that participation in the focus groups is optional—you will be asked about your consent regarding focus groups later in this survey. If you do not consent and do not wish to begin the study, please choose the appropriate option.

By clicking “I consent and wish to begin the study”, you acknowledge that you have read the letter of information and are making an informed decision to participate in the social media campaign. Thank you.

- I consent and wish to begin the study
- I do not consent and do not wish to continue

*[If students **do not** provide consent, they will receive the following message, “Thank you for your interest in the iBelong@Western study. We appreciate your time”. They will not be able to proceed with the study.]*

*[If students **do** provide consent to the study, they will click “**Next**” and be directed to the next page containing a list of mental health resources.]*

MENTAL HEALTH RESOURCES

While we (the researchers) do not foresee any potential risks associated with filling out the following online survey, it is important to be aware of the mental health support services available to students nationally, provincially, and locally.

Please note: If you are in an emergency situation or in immediate danger, please call 911, or go to nearest hospital/emergency department.

National and Provincial Mental Health Support Services:

General

- Canadian Mental Health Association (all ages):
 - Website: <https://cmha.ca/what-we-do/national-programs/>
- Government of Canada (all ages):
 - Website: <https://www.canada.ca/en/public-health/services/mental-health-services/mental-health-get-help.html>
 - Phone: 1-866-585-0445
 - Text Line: Text WELLNESS to 686868 for youth or 741741 for adults
- General Mental Health Support (all ages):
 - Website: <https://www.ontario.ca/page/find-mental-health-support>
- ConnexOntario Helpline (all ages):
 - Website: <https://www.connexontario.ca/en-ca/>
 - Phone: 1-866-531-2600
 - Text Line: Text "CONNEX" to 247247
- 211 Ontario (all ages):
 - Website: <https://211ontario.ca/search/>
 - Phone: 211
- BounceBack (all ages):
 - Website: <https://bouncebackontario.ca/>
 - Phone: 1-866-345-0224

Young People

- Kids Help Phone (ages 5 – 20):
 - Website: <https://kidshelpphone.ca/>
 - Phone: 1 800 668 6868
- Good2Talk (ages 17 – 25):
 - Website: <https://good2talk.ca/ontario/>
 - Phone: 1 866 925 5454

London and Area Resources:

- ReachOUT – Mobile and Chat Services:
 - Website: <https://reachout247.ca/>
 - Phone: 519-433-2023

- The Mental Health & Addiction Crisis Centre:
 - Website: <https://cmhamiddlesex.ca/programs-services/>
 - Address: 648 Huron Street, London, ON
 - Phone: 519-434-9191

- Anova Woman’s Community House:
 - Website: <https://www.anovafuture.org/>
 - Abused Women’s Helpline: 519-642-3000
 - Crisis and Support line: 519-438-2272

Campus Resources:

Information regarding **health- and wellness-related services** available to students at Western and affiliate campuses may be found outline at:

Western University

<https://www.uwo.ca/health/>

Brescia University College

https://brescia.uwo.ca/student_life/health_and_wellness/index.php

Huron University College

<https://huronatwestern.ca/wellness-services/>

King’s University College

<https://ukings.ca/campus-community/student-services/health/>

iBelong@Western: Social Media Campaign Set-Up Instructions

*[After providing consent to participate in the social media campaign, participants will click **Next** and be directed to this page which contains set-up instructions for the social media campaign.]*

Congratulations! You are now officially a part of the **iBelong@Western** study! The following instructions will help you get started with the social media campaign.

1. Do you have an **Instagram** account?

- Yes
- No

[If no, participants will be automatically directed to the questions about the next platform. If yes, participants will receive the following message:]

Great! Please take a moment to follow the Instagram “**ibelongstudy**” account by clicking <https://www.instagram.com/ibelongstudy/>

Don't worry, we'll wait! When you're ready, please proceed to the next question.

2. Do you have a **Facebook** account?

- Yes
- No

[If no, participants will be automatically directed to the questions about the next platform. If yes, participants will receive the following message:]

Awesome! Now, please take a moment to follow the Facebook “**iBelong**” account by clicking <https://www.facebook.com/iBelongStudy>

Great, thank you! Please proceed to the next question.

3. Do you have a **Twitter** account?

- Yes
- No

[If no, participants will be automatically directed to the questions about the next platform. If yes, participants will receive the following message:]

Fantastic! Please take a moment to follow the Twitter “**@ibelongstudy**” account by clicking <https://twitter.com/ibelongstudy>

All done? If so, please proceed to the next question.

4. Do you have a **LinkedIn** account?

- Yes
- No

[If no, participants will be automatically directed to the closing statement below (“Now you’re all set!...”). If yes, participants will receive the following message:]

Amazing! Now, please take a moment to follow the LinkedIn **“iBelong Study”** account by clicking <https://www.linkedin.com/in/ibelong-study-930b201a5>

Now you’re all set! Thank you for following the **iBelong@Western** social media campaign! Please press “Next” to continue.

[Participants will click “Next” and be directed to the next page containing questions about the social media campaign weekly draws and consent page.]

iBelong@Western: Social Media Campaign Weekly Draws – Consent Page

[After completing the social media campaign set-up, participants will click “Next” and be directed to this page containing questions about the weekly draws.]

Now that you’re all set up and ready to begin, please note that we will hold **weekly draws (for all 10 weeks of the social media campaign) for one \$20 Amazon e-gift card per week**. The random draws will take place every Friday from the beginning to the end of the campaign (February 2023 – April 2023). **Please click [here](#) for an overview of additional draw details as outlined on the full study Letter of Information, or visit ibelongstudy.com for more information.

Below are two check boxes. If you do not wish to participate in the weekly draws, please choose the appropriate option. By clicking “I consent”, you acknowledge that you have read and understand the information about the weekly draws included in the Letter of Information.

- Yes, I consent to have my email address entered into the weekly draws for a chance to win a \$20 Amazon e-gift card
- No, I do not consent to having my email address entered into the weekly draws for a chance to win a \$20 Amazon e-gift card

[If no is selected, participants will be directed to the focus group LOI and consent page. If yes is selected, participants will be directed to the next page and will be asked to provide their email address and social media handle(s).]

Please provide us with the email address you would like us to use for the draws and to notify you if you are randomly selected as a winner of one of the weekly draws. Please note that your email address will not be connected with the responses you provided in the online survey and will not be used for research purposes.

Email Address: _____

[Participants will click “Next” and then be asked (on the next page) whether they consent to having their social media handle(s) publicly announced if they are randomly selected as winners of a weekly draw.]

iBelong@Western Focus Group Summary and Consent

[After completing the social media campaign weekly draw questions/consent form, participants will be directed to this page of the Qualtrics survey which contains information about the optional focus groups. The focus group consent section will be on the same page as provided link to the focus group LOI.]

Are you interested in participating in one OPTIONAL online focus group to share your thoughts about social connectedness and the social media campaign?

In May 2023 (at the end of the 10-week social media campaign), we will be conducting focus groups to explore university students’ thoughts and experiences about social connectedness and belonging as a first-year university student, as well as about the social media campaign itself. Focus groups will be approximately 60 to 90 minutes in length, and will be conducted on Zoom with 4-5 other students plus the moderators.

[A link to a PDF of the LOI – Focus Groups, upon final ethics approval, will be provided on Google Drive. The document will have restricted access. Participants will not be able to edit the document and it can only be downloaded.]

Please click here to read the letter of information for the **optional** online focus groups.

iBelong@Western - Focus Group Letter of Information

Title: iBelong@Western: The development, implementation, and evaluation of an evidence-based social media campaign designed to enhance social connectedness among first-year university students

Invitation to Participate

You are being invited to take part in an optional portion of the iBelong@Western research study—that is, an online focus group exploring university students' thoughts and experiences about social connectedness and belonging as a first-year university student, as well as about the social media campaign itself.

Purpose of the Letter

The purpose of this letter is to provide you with the information required for you to make an informed decision regarding participation in the optional focus group portion of this research study.

Purpose of this Study

The purpose of the larger **iBelong@Western** study is to develop, implement, and evaluate the feasibility and preliminary effectiveness of an evidence-based social media campaign targeting the social connectedness of first-year university students in Ontario, Canada. The purpose of the optional online focus groups is to explore students' experiences with the social media campaign and perceptions of social connectedness as a first-year university student.

Inclusion Criteria

In order to participate in the iBelong@Western study, including focus groups, students must: (a) be enrolled (currently) as a first-year university student attending Western University (main campus); (b) be regular users of at least one of the following social media platforms: Instagram, Facebook, Twitter, and/or LinkedIn; (c) have access to the Zoom Video-Communications platform; (d) be proficient in English; and (e) provide consent to participate. For the purpose of the present study, being a “regular” social media user is defined as someone who frequently uses social media to remain in contact with family and friends, share content publicly, and follow current events (Statistics Canada, 2021).

Exclusion Criteria

Participants will be excluded if they: (a) are not enrolled as a first-year student at Western University (main campus); (b) are not regular users of at least one of the following social media platforms: Instagram, Facebook, Twitter, and/or LinkedIn; (c) do

not have access to the Zoom Video-Communications platform; (d) cannot speak or read in the English language; and (e) have not provided consent.

Study Procedures

In May 2023, following the social media campaign, you will have the **option** to participate in one 60-90 minute online focus group held in groups of 4-6 students using the Zoom Video Communications platform. The general purpose of these focus groups is to explore first-year university students' experiences with the social media campaign and thoughts about social connectedness. You may also be asked about your preferences (like/dislikes) related to the social media campaign, as well as suggestions/general feedback, and possible improvements that can be made to guide the direction of future research in this area.

If you provide consent to participate in a focus group, you will be asked to provide your email address. An email will be sent in April or May 2023 with a Focus Group Letter of Information and to schedule the focus group (a range of dates and times will be provided). After you have provided your availability, an email will be sent with a confirmed date and time and the Zoom link, in addition to information about the assigned participant ID that will be used for the focus groups (rather than your name, as outlined below). You will also be re-sent the Letter of Information about the focus groups at this time. If there are scheduling difficulties/conflicts, we may need to contact you again to select another date/time.

Possible Risks and Harms

While there are no foreseeable risks associated with participating in the focus groups, answering some of the questions could elicit difficult or negative thoughts and emotions in some individuals. Thus, we have included a list of local, provincial, and national mental health and counselling-related services available to first-year university students at the end of this letter. If there is inappropriate conduct or behaviour from a participant (as determined by the focus group moderator) during a focus group, the individual will be immediately removed from the Zoom meeting by the focus group moderator(s). The research team will ensure the use of password-protect Zoom sessions that are limited to Western users only, and all focus group sessions will be locked to prevent anyone new from joining. Participant privacy and confidentiality will be deliberately considered for data collection, storage, and electronic transfer. There may be unforeseen potential risks associated with focus group data, such as information leakage and data breaches. To mitigate such risks, the research team will ensure that up-to-date firewall and antivirus software has been installed in all devices for members of the research team handling the research data.

Possible Benefits

While there may be no direct benefits associated with participation in this research study, study participants will have access to online information about social

connectedness, as well as prompts/opportunities to connect with others and supports and resources available on campus. As such, participation in the research study may contribute to enhanced feelings of social connectedness for first-year university students. Lastly, student opinions and preferences will be used to inform and support future research in this important area.

Voluntary Participation

Your participation in this study is voluntary. You may decide not to be in this study at any time. Even if you consent to participate, you have the right to not answer individual questions or to withdraw from the study at any time. If you choose not to participate or to leave the study at any time it will have no effect on you/your academic standing. You do not waive any legal rights by consenting to this study. In the event that you choose to withdraw from the focus groups, we cannot guarantee that comments shared during the focus group session (for those who participate), will be removed from researchers' records given the difficulties in reliably tracking who said each comment in focus groups.

Compensation

There will be no compensation for participation in the focus groups.

Confidentiality

Participant information such as emails for focus group scheduling and contact purposes will be collected through a secure online survey platform called Qualtrics. Qualtrics uses encryption technology and restricted access authorizations to protect all data collected. In addition, Western's Qualtrics server is in Ireland, where privacy standards are maintained under the European Union safe harbour framework. The data will then be exported from Qualtrics and securely stored on a Western University server. All data collected will remain confidential and accessible only to the investigators of this study. While we will do our best to protect your information, there is no guarantee that we will be able to do so.

Email addresses are being requested to provide information about focus group scheduling, unique participant IDs and information about the focus groups. Names, email addresses, or other potentially identifiable information will not be used for research purposes.

With regard to focus group data, thematic analyses will be conducted, whereby themes will be presented along with illustrative direct quotes. Unique participant IDs will be used for direct quotes for all research activities. Names, email addresses, and/or other potentially identifiable information will not be used for research purposes. In addition, Participant IDs used for research purposes will be different from the Participant IDs used in Zoom focus groups. The research team will have access to the aggregated data and identifiable (i.e., email addresses) and de-identified (i.e., unique IDs) descriptors.

The focus group transcripts will be retained for approximately 7 years as per regulatory guidelines (e.g., granting agency guidelines, Western ethical guidelines), after which the electronic data will be deleted from the password-protected computers on which they were stored. After a minimum of 7 years, all data will be destroyed. By participating in this research, you agree that the results may be used for scientific purposes, including publication in scientific journals. You do not waive any legal rights by consenting to this study. Although direct quotes may be used, the results of the study will be reported without identifying you personally, thus maintaining your confidentiality. Representatives of The University of Western Ontario Non-Medical Research Ethics Board may contact you or require access to your study-related records to monitor the conduct of the research.

Contacts for Further Information

If you require any further information regarding this research project or your participation in the study, you may contact Co-Investigator (Masters Student), Ms. Julie Vo or Principal Investigator, Dr. Shauna Burke.

If you have any questions about your rights as a research participant or the conduct of this study, you may contact The Office of Human Research Ethics. This office oversees the ethical conduct of research studies and is not part of the study team. Everything you discuss will be kept confidential.

Publication

If the results of the study are published, your name will not be used. If you would like to receive a copy of any potential study results, please email Co-Investigator (Masters Student), Ms. Julie Vo or Principal Investigator, Dr. Shauna Burke.

Consent

Prior to participating in the focus groups, you will be asked to provide consent. If you do not provide consent, you will be directed to the Participant Information survey.

Please find the list of mental health resources below.

[There will be a list of mental health resources on the same document as the LOI – Focus Groups.]

MENTAL HEALTH RESOURCES

The researchers acknowledge that answering some questions in the optional focus groups (for example, feelings about belonging and social connectedness as a first-year university student) might elicit difficult or negative thoughts and emotions in some individuals. Please

find below a list of mental health support services available to students nationally, provincially, and locally.

First and foremost, **if you are in an emergency situation or in immediate danger, please call 911**, or go to nearest hospital/emergency department.

National and Provincial Mental Health Support Services:

University students seeking help regarding mental health concerns can use these National and Provincial mental health resources:

General

- Canadian Mental Health Association (all ages):
 - Website: <https://cmha.ca/what-we-do/national-programs/>
- Government of Canada (all ages):
 - Website: <https://www.canada.ca/en/public-health/services/mental-health-services/mental-health-get-help.html>
 - Phone: 1-866-585-0445
 - Text Line: Text WELLNESS to 686868 for youth or 741741 for adults
- General Mental Health Support (all ages):
 - Website: <https://www.ontario.ca/page/find-mental-health-support>
- ConnexOntario Helpline (all ages):
 - Website: <https://www.connexontario.ca/en-ca/>
 - Phone: 1-866-531-2600
 - Text Line: Text "CONNEX" to 247247
- 211 Ontario (all ages):
 - Website: <https://211ontario.ca/search/>
 - Phone: 211
- BounceBack (all ages):
 - Website: <https://bouncebackontario.ca/>
 - Phone: 1-866-345-0224

Young People

- Kids Help Phone (ages 5 – 20):
 - Website: <https://kidshelpphone.ca/>
 - Phone: 1 800 668 6868
- Good2Talk (ages 17 – 25):
 - Website: <https://good2talk.ca/ontario/>
 - Phone: 1 866 925 5454

London and Area Resources:

- ReachOUT – Mobile and Chat Services:
 - Website: <https://reachout247.ca/>
 - Phone: 519-433-2023

- The Mental Health & Addiction Crisis Centre:
 - Website: <https://cmhamiddlesex.ca/programs-services/>
 - Address: 648 Huron Street, London, ON
 - Phone: 519-434-9191

- Anova Woman’s Community House:
 - Website: <https://www.anovafuture.org/>
 - Abused Women’s Helpline: 519-642-3000
 - Crisis and Support line: 519-438-2272

Campus Resources:

Information regarding **health- and wellness-related services** available to students at Western campus may be found outline at: <https://www.uwo.ca/health/>

Focus Group Consent Section

[After reading the LOI – Focus Groups and downloading the mental health resources (if interested), participants will scroll down to the focus group consent questions.]

Below are two choices related to your willingness to participate in the **optional** online focus group, as part of the **iBelong@Western** study. If you do not wish to participate in the focus group, please choose the appropriate option. By clicking “I consent to participate in the online focus group”, you acknowledge that you have read the letter of information about the focus groups and are making an informed decision to participate. Thank you.

- Yes, I consent to participate in the online focus group
- No, I do not consent to participate in the online focus group

*[If participants **do not** provide consent, they will click “Next” and be directed to the next page containing the participant information and social media use questions. If they **do** provide consent, they will click “Next” and be asked to provide their email address.]*

Please provide your email address below. You will be contacted for focus group scheduling purposes and be provided with an assigned unique participant ID.

Please click “Next” to continue.

[After providing their email address, participants will click “Next” and be directed to the participant information and social media use questions on the next page.]

Appendix F: Participant Information Survey

iBelong@Western: Participant Information

[After completing the focus group consent questions, participants will automatically be directed to a separate survey on Qualtrics containing questions about participant demographic and descriptive information.]

1. What is the gender you most identify with? *(Please note that this question refers to **current gender** which may be different from sex assigned at birth and may be different from what is indicated on legal documents; Statistics Canada, 2021).*

- Male
- Female
- Identity not listed, please specify: _
- Prefer not to say

2. What is your current age?

Age: _____

- Prefer not to say

3. Do you identify as:

- White
- South Asian (e.g., East Indian, Pakistani, Sri Lankan)
- Chinese
- Black
- Filipino
- Arab
- Latin American
- Southeast Asian (e.g., Vietnamese, Cambodian, Laotian, Thai)
- West Asian (e.g., Iranian, Afghan)
- Korean
- Japanese
- Other group — specify: _____
- Prefer not to say

4. Where do you live (during the school year)?

- Campus residence
- Other university housing
- Parent/guardian's house
- Other off-campus housing – Please specify: _____
- Prefer not to say

5. Are you a(n)?
- In-province student (from Ontario)
 - Out-of-province student (from outside of Ontario)
 - International student (from outside of Canada)
 - Prefer not to say
6. Are you enrolled as a full-time student or a part-time student?
- Full-time student
 - Part-time student
 - Prefer not to say
7. Please tell us what program of study you are currently enrolled in:
Program of study: _____
- Prefer not to say

[Participants will click “Next” and be directed to the next page containing questions about social media use.]

iBelong@Western: Social Media Use Questions

[After completing the participant information questions, participants will click “Next” and be directed to questions about their social media use.]

1. On average, **how many minutes per day** do you spend on social media (in TOTAL, for all platforms/apps combined)?
_____ minutes per day
- Prefer not to say
2. In what way(s) do you **most often** engage with social media?
- I **actively** engage with others via online communication, posting updates, sharing photos, and commenting
 - I scroll **passively** through other people’s posts
 - Prefer not to say

[After completing the social media questions, the survey will end and participants will receive the following message:]

Thank you very much for completing the online survey, and **welcome to the iBelong@Western team!** We are excited to get started!

If you have any questions, please feel free to contact study Co-Investigator (Masters Student), Ms. Julie Vo or Principal Investigator, Dr. Shauna Burke.

Appendix G: Email for Updated Online Interviews

Study Update Email:

Dear iBelong@Western Research Participant,

Thank you again for your interest in participating in the iBelong focus groups. Due to scheduling and recruitment challenges, **we have decided to proceed with 1-on-1 (online) interviews** instead of focus groups (see attached letter of information if you would like more information).

If you are interested in participating in a single optional (90 minute max) 1-on-1 interview (held on Zoom), we would ask that you kindly click on the link below to let us know your availability.

Qualtrics Link:

https://uwo.eu.qualtrics.com/jfe/form/SV_9nn5ZjPpgBYAfmS

Thank you very much for your ongoing participation in this study! If you have indicated your availability, we will be in contact with you again shortly to confirm a time (or request additional availability if necessary).

If you have any questions about this study or the interview, please email Ms. Julie Vo.

If you require any further information regarding this research project or your participation in the study, you may also contact the Principal Investigator, Dr. Shauna Burke.

If you have any questions about the conduct of this study or your rights as a research participant, you may contact the Office of Human Research Ethics.

Thank you for consideration.

Sincerely,

Julie Vo, Co-Investigator (Masters Student), iBelong@Western Research Study
Health and Rehabilitation Sciences Graduate Program, Faculty of Health Sciences,
Western University

Dr. Shauna Burke, Principal Investigator, iBelong@Western Research Study
School of Health Studies, Faculty of Health Sciences, Western University

Appendix H: Updated Letter of Information for Online Interviews

iBelong@Western Interview Summary

Are you interested in participating in one **OPTIONAL** (online) interview to share your thoughts about social connectedness and the social media campaign?

In June 2023 (following the 10-week social media campaign), we will be conducting 1-on-1 online interviews to explore university students' thoughts and experiences about social connectedness and belonging as a first-year university student, as well as about the social media campaign itself. Interviews will be approximately 60 to 90 minutes in length, and will be conducted on Zoom with one of the study researchers (Julie Vo).

Please click [here](#) to read the letter of information for the **optional** online interviews.

iBelong@Western - Interview Letter of Information

Title: iBelong@Western: The development, implementation, and evaluation of an evidence-based social media campaign designed to enhance social connectedness among first-year university students

Invitation to Participate

You are being invited to take part in an optional portion of the iBelong@Western research study—that is, an online interview exploring university students' thoughts and experiences about social connectedness and belonging as a first-year university student, as well as about the social media campaign itself.

Purpose of the Letter

The purpose of this letter is to provide you with the information required for you to make an informed decision regarding participation in the **optional** interview portion of this research study.

Purpose of this Study

The purpose of the larger **iBelong@Western** study is to develop, implement, and evaluate the feasibility and preliminary effectiveness of an evidence-based social media campaign targeting the social connectedness of first-year university students in Ontario, Canada. The purpose of the optional online interview is to explore students' experiences with the social media campaign and perceptions of social connectedness as a first-year university student.

Inclusion Criteria

In order to participate in the iBelong@Western study, including the one-on-one interview held at the end of the study, students must: (a) be enrolled (currently) as a first-year university student attending Western University (main campus); (b) be regular users of at least one of the following social media platforms: Instagram, Facebook, Twitter, and/or LinkedIn; (c) have access to the Zoom Video-Communications platform; (d) be proficient in English; and (e) provide consent to participate. For the purpose of the present study, being a “regular” social media user is defined as someone who frequently uses social media to remain in contact with family and friends, share content publicly, and follow current events (Statistics Canada, 2021).

Exclusion Criteria

Participants will be excluded if they: (a) are not enrolled as a first-year student at Western University (main campus); (b) are not regular users of at least one of the following social media platforms: Instagram, Facebook, Twitter, and/or LinkedIn; (c) do not have access to the Zoom Video-Communications platform; (d) cannot speak or read in the English language; and (e) have not provided consent.

Study Procedures

In June 2023, following the social media campaign, you will have the **option** to participate in one 60-90 minute online 1-on-1 interview using the Zoom Video Communications platform. The general purpose of these interviews is to explore first-year university students’ experiences with the social media campaign and thoughts about social connectedness. You may also be asked about your preferences (like/dislikes) related to the social media campaign, as well as suggestions/general feedback, and possible improvements that can be made to guide the direction of future research in this area.

If you provide consent to participate in an interview, you will be asked to provide your email address. An email will be sent in May/June 2023 with an Interview Letter of Information and to schedule the interview (a range of dates and times will be provided). After you have provided your availability, an email will be sent with a confirmed date and time and the Zoom link, in addition to information about the assigned participant ID that will be used for the interview (rather than your name, as outlined below). You will also be re-sent the Letter of Information about the interview at this time. If there are scheduling difficulties/conflicts, we may need to contact you again to select another date/time.

Possible Risks and Harms

While there are no foreseeable risks associated with participating in the interview, answering some of the questions could elicit difficult or negative thoughts and emotions in some individuals. Thus, we have included a list of local, provincial, and national

mental health and counselling-related services available to first-year university students at the end of this letter. If there is inappropriate conduct or behaviour from a participant (as determined by the interview facilitator) during an interview, the individual will be immediately removed from the Zoom meeting by the interview facilitator. The research team will ensure the use of password-protect Zoom sessions that are limited to Western users only, and all Zoom sessions will be locked to prevent anyone new from joining. Participant privacy and confidentiality will be deliberately considered for data collection, storage, and electronic transfer. There may be unforeseen potential risks associated with interview data, such as information leakage and data breaches. To mitigate such risks, the research team will ensure that up-to-date firewall and antivirus software has been installed in all devices for members of the research team handling the research data.

Possible Benefits

While there may be no direct benefits associated with participation in this research study, study participants will have access to online information about social connectedness, as well as prompts/opportunities to connect with others and supports and resources available on campus. As such, participation in the research study may contribute to enhanced feelings of social connectedness for first-year university students. Lastly, student opinions and preferences will be used to inform and support future research in this important area.

Voluntary Participation

Your participation in this study is voluntary. You may decide not to be in this study at any time. Even if you consent to participate, you have the right to not answer individual questions or to withdraw from the study at any time. If you choose not to participate or to leave the study at any time it will have no effect on you/your academic standing. You do not waive any legal rights by consenting to this study. In the event that you choose to withdraw from the interview, we will ensure that comments shared during the interview session (for those who participate), will be removed from researchers' records.

Compensation

There will be no compensation for participation in the interview.

Confidentiality

Participant information such as emails for interview scheduling and contact purposes will be collected through a secure online survey platform called Qualtrics. Qualtrics uses encryption technology and restricted access authorizations to protect all data collected. In addition, Western's Qualtrics server is in Ireland, where privacy standards are maintained under the European Union safe harbour framework. The data will then be exported from Qualtrics and securely stored on a Western University server. All data

collected will remain confidential and accessible only to the investigators of this study. While we will do our best to protect your information, there is no guarantee that we will be able to do so.

Email addresses are being requested to provide information about interview scheduling, unique participant IDs and information about the interview. Names, email addresses, or other potentially identifiable information will not be used for research purposes.

With regard to interview data, thematic analyses will be conducted, whereby themes will be presented along with illustrative direct quotes. Unique participant IDs will be used for direct quotes for all research activities. Names, email addresses, and/or other potentially identifiable information will not be used for research purposes. In addition, Participant IDs used for research purposes will be different from the Participant IDs used in Zoom interviews. The research team will have access to the aggregated data and identifiable (i.e., email addresses) and de-identified (i.e., unique IDs) descriptors.

The interview transcripts will be retained for approximately 7 years as per regulatory guidelines (e.g., granting agency guidelines, Western ethical guidelines), after which the electronic data will be deleted from the password-protected computers on which they were stored. After a minimum of 7 years, all data will be destroyed. By participating in this research, you agree that the results may be used for scientific purposes, including publication in scientific journals. You do not waive any legal rights by consenting to this study. Although direct quotes may be used, the results of the study will be reported without identifying you personally, thus maintaining your confidentiality. Representatives of The University of Western Ontario Non-Medical Research Ethics Board may contact you or require access to your study-related records to monitor the conduct of the research.

Contacts for Further Information

If you require any further information regarding this research project or your participation in the study, you may contact Co-Investigator (Masters Student), Ms. Julie Vo or Principal Investigator, Dr. Shauna Burke.

If you have any questions about your rights as a research participant or the conduct of this study, you may contact The Office of Human Research Ethics. This office oversees the ethical conduct of research studies and is not part of the study team. Everything you discuss will be kept confidential.

Publication

If the results of the study are published, your name will not be used. If you would like to receive a copy of any potential study results, please email Co-Investigator (Masters Student), Ms. Julie Vo or Principal Investigator, Dr. Shauna Burke.

Consent

Prior to participating in the interview, you will be asked to provide verbal consent via a number of questions. If you do not answer “yes” to all questions, you will not be able to participate in the interview.

Please find the list of mental health resources below.

MENTAL HEALTH RESOURCES

The researchers acknowledge that answering some questions in the optional interview (for example, feelings about belonging and social connectedness as a first-year university student) might elicit difficult or negative thoughts and emotions in some individuals. Please find below a list of mental health support services available to students nationally, provincially, and locally.

First and foremost, if you are in an emergency situation or in immediate danger, please call 911, or go to nearest hospital/emergency department.

National and Provincial Mental Health Support Services:

University students seeking help regarding mental health concerns can use these National and Provincial mental health resources:

General

- Canadian Mental Health Association (all ages):
 - Website: <https://cmha.ca/what-we-do/national-programs/>
- Government of Canada (all ages):
 - Website: <https://www.canada.ca/en/public-health/services/mental-health-services/mental-health-get-help.html>
 - Phone: 1-866-585-0445
 - Text Line: Text WELLNESS to 686868 for youth or 741741 for adults
- General Mental Health Support (all ages):
 - Website: <https://www.ontario.ca/page/find-mental-health-support>
- ConnexOntario Helpline (all ages):
 - Website: <https://www.connexontario.ca/en-ca/>
 - Phone: 1-866-531-2600
 - Text Line: Text "CONNEX" to 247247
- 211 Ontario (all ages):
 - Website: <https://211ontario.ca/search/>
 - Phone: 211

- BounceBack (all ages):
 - Website: <https://bouncebackontario.ca/>
 - Phone: 1-866-345-0224

Young People

- Kids Help Phone (ages 5 – 20):
 - Website: <https://kidshelpphone.ca/>
 - Phone: 1 800 668 6868
- Good2Talk (ages 17 – 25):
 - Website: <https://good2talk.ca/ontario/>
 - Phone: 1 866 925 5454

London and Area Resources:

- ReachOUT – Mobile and Chat Services:
 - Website: <https://reachout247.ca/>
 - Phone: 519-433-2023
- The Mental Health & Addiction Crisis Centre:
 - Website: <https://cmhamiddlesex.ca/programs-services/>
 - Address: 648 Huron Street, London, ON
 - Phone: 519-434-9191
- Anova Woman's Community House:
 - Website: <https://www.anovafuture.org/>
 - Abused Women's Helpline: 519-642-3000
 - Crisis and Support line: 519-438-2272

Campus Resources:

Information regarding **health- and wellness-related services** available to students at Western campus may be found outline at: <https://www.uwo.ca>

Curriculum Vitae

Name: Julie Vo

Post-Secondary Education and Degrees

2021 - Present MSc in Health and Rehabilitation Sciences
Western University, London, Ontario

2017 - 2021 BSc – Honours Life Sciences
McMaster University, Hamilton, Ontario

Honours and Awards

2022-2023 Canada Graduate Scholarship – Masters: SSHRC
Total Award: \$17,500

2021 SSHRC Explore Grant
Total Award: \$7,000

2019-2021 Dean’s Honour List
Distinction awarded to students who achieved over an 80%
average McMaster University, Hamilton, Ontario

2020 Junior League of Hamilton-Burlington Community Contribution
Awarded to students who contributed significantly to the Hamilton
community

2017 McMaster University Entrance Scholar’s Award
Total Award: \$1,000

Related Work Experience

2023 Graduate Research Assistant
Supervisor: Dr. Debbie Rudman
Western University, London, Ontario

2023 Social Media Coordinator
Public Health Insight
Toronto, Ontario

2023 Graduate Teaching Assistant
HS 2610: Introduction to Ethics and Health
Western University, London, Ontario

2022-2023	Research Assistant Institute for Health System Solutions and Virtual Care Women's College Hospital, Toronto, Ontario
2022	Head Graduate Teaching Assistant HS 1002: Social Determinants of Health Western University, London, Ontario
2021- 2022	Graduate Teaching Assistant HS 1001a: Personal Determinants of Health Western University, London, Ontario
2021	Graduate Teaching Assistant HS 1002: Social Determinants of Health Western University, London, Ontario

Conference Presentations

Abdul, A. Y., Ng, V., Srinivasan, D., **Vo., J.**, Desveaux, L., Schwartz., Rosenberg-Yunger, K., Berenbaum, E., Friedman, L., Langford, B., Leung, V., Angl, E., Nakhla, N., Tadrous., M. *Facilitators and barriers to minor ailment prescribing in Ontario: Perceptions of pharmacists, physicians and patients to service implementation* [abstract]. In 2023 Ontario Pharmacy Evidence Network (OPEN) Summit; 2023

Vo, J., Litchfield, H., Koert van der Linden, N., Tucker, T., Irwin, J.D., & Burke, S. M. (2023, February 1st). *iBelong@Western: The development, implementation, and evaluation of an evidence-based social media campaign designed to enhance social connectedness among first-year university students*. Oral presentation delivered at the Health and Rehabilitation Sciences Graduate Research Conference, London, ON, Canada.

***Winner (i.e., top-rated presenter) in the MSC "Explore" category**

Vo., J., Srinivasan, D., Wu, K., Wang., R., Rouleau, G., & Desveaux, L. (2022, July 21). *Tailoring audit and feedback to teams*. Oral presentation to be delivered at the Summer Student Research Program Conference, Toronto, ON, Canada.