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## The Effect of Wellness Coaching on Sense of Belonging Index Scores

Erick Westbrook

St. Cloud State University, [nwva0670@hotmail.com](mailto:nwva0670@hotmail.com)

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**The Effect of Wellness Coaching on Sense of Belonging Index Scores**

By

Erick Westbrook

A Thesis

Submitted to the Graduate Faculty of

St. Cloud State University

in Partial Fulfillment of the Requirements

for the Degree of

Master of Social Work

March, 2021

Thesis Committee:  
Sara DeVos, Chair  
Consoler Teboh  
Erica Karger-Gatzow

## Abstract

The purpose of this study was to examine whether not wellness coaching, as implemented at St. Cloud State University, has a measurable impact on participant belonging, as operationalized by the SCSU Belonging Initiative's periodic Sense of Belonging Index (SBI) surveys, which are administered at the beginning of each semester (Davis et al., 2019). Contemporary research indicates that a sense of belonging, or a lack thereof, is a key component in whether or not students continue to enroll on higher education, and is a stronger prediction of retention than GPA (Davis et al., 2019; O'Keeffe, 2013). Moreover, interventions designed to increase belonging may have an impact on reducing achievement gaps between majority and minority groups (Silver Wolf et al., 2017; Walten & Cohen, 2007). Wellness coaching is an intervention that can impact known factors of belonging (ACHA, 2020; Cemalcilar, 2010; Chiu, 2016; Clark et al., 2016; Duran et al., 2020; Krumrei-Mancuso et al., 2013; Masika, 2016; Pearson, 2012; Samura, 2016; Sforzo et al., 2017; Slaten et al., 2016; Swarbrick et al., 2011; Tachinea et al., 2017; Vaccaro, 2015). This study was designed to explore the relationship between belonging and wellness coaching by examining SBI survey scores before and after wellness coaching and determine if the process of using SBI scores was feasible as a method of evaluation. This study concluded that, while not enough data exists to determine the efficacy of wellness coaching in increasing SBI scores, this method of program evaluation is feasible and can be used again in the future as more data becomes available.

*Keywords:* Belonging, wellness coaching, student retention, student attrition, higher education, higher ed

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## Chapter I: Introduction

A thing of particular importance to institutions of higher learning is student retention. In a historical analysis of retention in such institutions, Tinto (2016) wrote that, while student retention is one of the most-studied phenomenon in contemporary research, and a cottage industry of sorts has sprung up to meet the demand for enhanced student retention (and thus graduation rates) in an era of perennial austerity, on the whole, frustratingly little progress has been made, and not much has changed in the past few decades. To that end, Tinto (2016) described how the frame of reference in the 1970s shifted from the lens of the psychology of individual deficits to the lens of the overall environment.

It is within this context that much contemporary research has operated. One particular facet of this research is the concept of belonging, that is, the degree to which students feel they are connected to, or are member of, their school (Pittman & Richmond, 2008). Students' overall sense of belonging is associated with improved adjustment to the university environment, greater retention, improved GPA, and reductions in achievement gaps between students from majority populations and students from minority populations (Davis et al., 2019; O'Keeffe, 2013; Pittman & Richmond, 2008; Silver Wolf et al., 2017; Walten & Cohen, 2007).

Wellness coaching is a contemporary intervention strategy employed by college campuses for a variety of purposes, such as providing relief to conventional mental health services, which are often overwhelmed by demand; assisting students in meeting health and wellness goals; and increasing their overall sense of belonging (Larcus et al., 2016; St. Cloud State University, 2020). Wellness coaching is a brief, client-centered intervention that considers the client the expert in their own lives. Coaches employ strategies, such as motivational interviewing, to form collaborative, goal-oriented partnerships with students, using open-ended

questions and reflections to assist students in examining their own ambivalence, motivations, and desires for sustained behaviour change (ACHA, 2020; Clark et al., 2016; Sforzo et al., 2017; Swarbrick et al., 2011). Wellness coaching is centered on client empowerment, and may accomplish this through any combination of multiple theoretical lenses, including motivational interviewing, the transtheoretical model of change, self-determination theory, positive psychology, appreciative inquiry, and self-authorship (ACHA, 2020). With respect to belonging, wellness coaching is particularly promising because it directly affects several known factors of belonging, such as a sense of being in the right major, a sense of self-efficacy, relationship building, and positive peer relationships (ACHA, 2020; Cemalcilar, 2010; Chiu, 2016; Clark et al., 2016; Duran et al., 2020; Krumrei-Mancuso et al., 2013; Masika, 2016; Pearson, 2012; Samura, 2016; Sforzo et al., 2017; Slaten et al., 2016; Swarbrick et al., 2011; Tachinea et al., 2017; Vaccaro, 2015). Given the established relationship between belonging and retention, it will be useful to institutions of higher education to solidify the potential link between wellness coaching and belonging.

### **Wellness Coaching at St. Cloud State**

The purpose of SCSU Wellness Coaching is to empower students, assisting them in increasing their ability to set and achieve goals, their sense of belonging, and their ability to initiate and maintain wellness-related behaviours and take steps towards being the persons that they want to become (St. Cloud State University, 2020). Coaches are typically graduate students in human service-related fields, such as social work. The program provides a unique internship opportunity for students to gain experience in creating functional partnerships with other students in the service of a brief intervention. While the theoretical underpinnings of wellness coaching programs in general are varied, SCSU Wellness Coaching uses motivational interviewing and its

theoretical underpinnings as the sole model of practice. Motivational interviewing originated in treating substance use disorders and is adaptable to a wide variety of settings and situations. It is a client-centered approach where the practitioner positions themselves not as an authority with a repository of knowledge, but rather as a collaborative partner who views the client as the expert in their own lives (Miller & Rollnick, 2013). In the motivational interviewing style, the practitioner purposefully reflects the client's statements of emotion back to them, with a particular focus on reinforcing statements that promote behaviour change (called "change talk" in MI parlance), deliberately reflecting less language that reflects inertia (called "sustain talk"). Open-ended questions are used to guide the conversation towards the client's own motivations, desires, goals, and sense of self-efficacy (Miller & Rollnick, 2013).

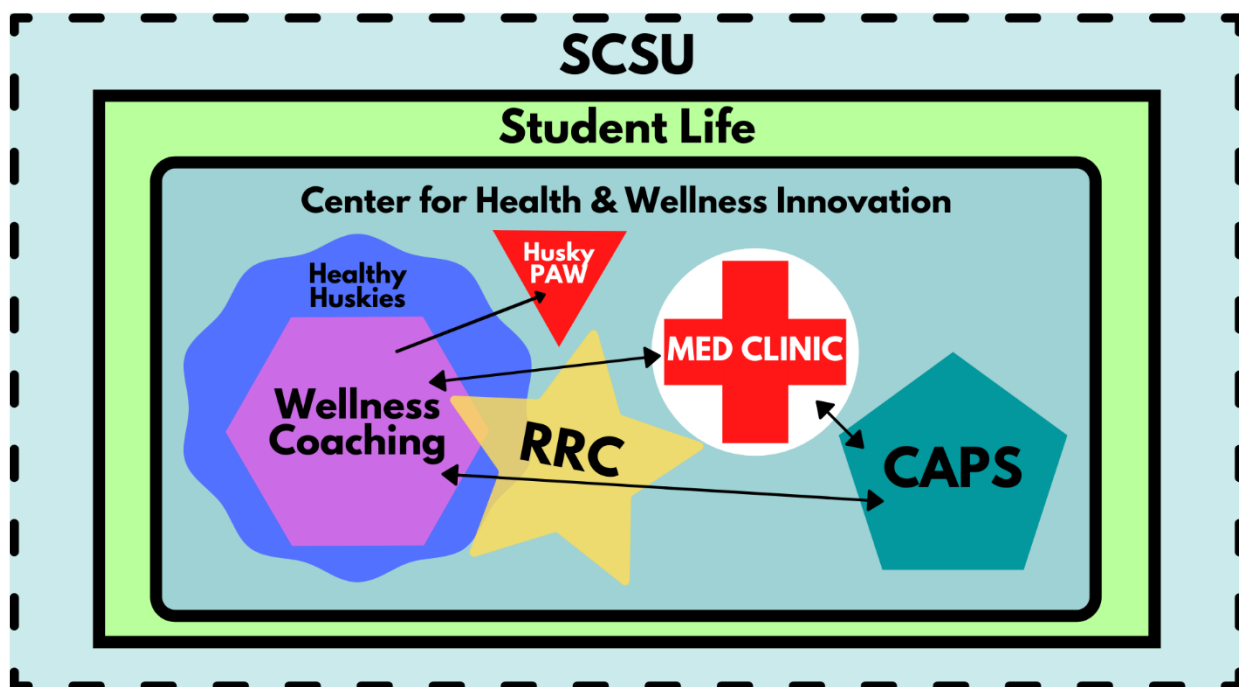
Consistent with findings by Larcus et al. (2016), wellness coaching at St. Cloud State is integrated into existing services designed to enhance the well-being of students, including more traditional counselling and psychological services (CAPS) also available on campus. SCSU Wellness Coaching also refers clients to the medical clinic when they feel it is appropriate, or to Husky PAW, which is a physical fitness program. The Recovery Resource Center (RRC) is integrated into SCSU Wellness Coaching in that RRC clients are mandated to participate in wellness coaching sessions (an ecomap that describes how SCSU Wellness Coaching fits into these programs is provided in Fig. 1.1). Also consistent with Larcus et al. (2016), wellness coaching serves as a preventative service that addresses potential problems before they can become larger mental health issues, which reduces the overwhelming demand for more traditional services.

Notwithstanding any similarities between SCSU Wellness Coaching and other wellness coaching programs, there are important differences to highlight. Wellness coaches are graduate

students at SCSU, however, nationally, programs with coaches who are peers is part of an emerging trend in a field where professional staff are typical (ACHA, 2020). SCSU Wellness Coaching does not require coaches to be certified through a nationally recognized training program, while some institutions do (ACHA, 2020). It's not atypical for intake sessions at other institutions to be up to 90 minutes long, and some institutions limit the number of sessions (ACHA, 2020). SCSU Wellness Coaching, by contrast, employs a 15-minute intake coupled to a 30-minute initial session, with no limitations on the number of 30-minute follow-up sessions that students can attend - in fact, SCSU Wellness Coaching strongly encourages a *minimum* of three sessions.

**Figure 1.1**

*An ecomap of SCSU Wellness Coaching*



## **The SCSU Belonging Initiative**

St. Cloud State has the fortune of being the site of an initiative to investigate the degree to which students feel they belong. To that end, the SCSU Belonging Initiative runs a survey at the beginning of every semester. This survey is administered to all new entering freshmen, and, because it is run at the beginning of every semester, the Belonging Initiative can track students in cohorts by surveying each cohort in both semesters of the freshman year, the first semester of the sophomore year, and the first semester of the senior year (Davis et al., 2019). The survey consists of 20 questions. 10 of the questions relate to academic belonging, or belonging to major, while the remaining 10 relate to social belonging, or belonging to the institution. The survey utilizes a 5-point Likert scale, and the answers to the questions in each category are averaged to form a global score for that category, after which students are placed into four categories of belonging for both academic and social belonging: high belonging, medium belonging, low belonging, and no response. Students who do not respond to the survey are considered a high risk for non-retention (Davis et al., 2019).

## **Purpose of the Study**

The purpose of this research was primarily to evaluate the efficacy of SCSU Wellness Coaching with respect to one of the program's goals, which is to increase students' overall sense of belonging (St. Cloud State University, 2020). A secondary goal was to test whether this process of using SBI data was a feasible method of measuring program outcomes. As the program has a social worker on staff in a supervisory role, and frequently employs Master of Social Work students as interns, it can be considered a social work intervention. Additionally, as

the program is still in the early years of operation, there is an ethical responsibility to clients to study whether or not the intervention is meeting its goals as a matter of competence and overall benefit to the client (NASW, 2017). Moreover, since increasing students' sense of belonging is a stronger predictor of student retention than GPA (Davis et al., 2019), it is incumbent upon the program to demonstrate to the university that it is meeting its goals in the context of the gestalt of the university's health and wellness services.

### **Research Question and Hypothesis**

This research was designed to answer the question: "Does participation in wellness coaching have a positive effect on social belonging index scores?" This study hypothesized that students who participated in wellness coaching at St. Cloud State University would show a significant increase in sense of belonging, as measured on the social belonging index, when SBI scores before participation were compared to scores after participation.

## **Chapter II: Review of the Literature**

In order to examine the relationship between wellness coaching and students' sense of belonging, it's first important to define what belonging is and why it's important to college students' overall outcomes. This chapter will examine the importance of belonging in terms of academic factors and retention. It will also examine components, or factors, of belonging. Following this, wellness coaching will be described, along with its theoretical foundation, efficacy, and secondary benefits to students. Finally, belonging and wellness coaching will be related through factors of belonging that wellness coaching can address.

### **Belonging**

The degree to which students feel they belong has implications for their self-perception and ability to adjust to the university environment (Pittman & Richmond, 2008). Belonging has been associated with student retention, increased GPA, and reductions in achievement gaps between Caucasian and minority students (Silver Wolf et al., 2017; Walten & Cohen, 2007). A sense of belonging is a greater predictor of student retention than GPA (Davis et al., 2019), and feelings of rejection and a lack of belonging are key factors in the attrition of college students (O'Keeffe, 2013). This is particularly true of students who belong to minority groups, whose sense of belonging is often affected by experiences of exclusion, discrimination, and bias from peers, faculty, and staff (Sedgwick, 2014; Silver Wolf et al., 2017; Slaten et al., 2016; Tachinea et al., 2017; Walton & Cohen, 2007).

### ***Why Belonging Matters***

**Belonging and Academic Factors.** Pittman and Richmond (2008) find a correlation between a sense of belonging to a university and students' perceptions of social acceptance and academic ability. While actual problem behaviours in their study were more closely linked to the quality of friendships, students' overall sense of belonging impacted their perceptions of themselves. Pittman and Richmond (2008) ultimately consider interventions designed to enhance students' sense of university belonging to be a promising way to assist them in adjusting to the university environment. Silver Wolf et al (2017) performed a brief social-belonging intervention with students and found that, while their brief intervention led to an increase in retention over the control group, the effect was not statistically significant. However, it did have a statistically-significant positive effect on GPA. This study, which was aimed at minority students, is consistent with findings by Walton and Cohen (2007) where a 90% reduction in the achievement gap was measured in a group of minority college students who were involved in an intervention designed to increase their sense of belonging.

**Belonging and retention.** O'Keefe (2013) identifies feelings of rejection and a lack of belonging as key factors in the attrition of college students. Students who feel disconnected are less likely to view themselves as students and are less likely to demonstrate attachment and commitment. O'Keefe considers it critical to both academic performance and retention for universities to create an environment where students feel cared for, an environment that can be fostered by a sense of connection developed through meaningful relationships. Davis et al. (2019) identify two major sources of risk for students: academic performance risk and social



belonging risk, and that students who have low scores on the Social Belonging Index survey, developed by the group to measure students' sense of belonging at the St. Cloud State University campus, are at a significantly greater risk of non-retention. In fact, Davis et al. (2019) find that GPA is largely similar between the four levels of belonging (high, medium, low, and survey non-responders). The implication is clear: social belonging is an important factor in retention.

Moreover, while the Davis et al. (2019) study did not find that academic performance risk and social belonging risk are correlated, and that they must be considered separately when assessing risk for non-retention, it's important to remember that studies by Silver Wolf et al. (2017) and Walton and Cohen (2007) linked interventions designed to enhance belonging to a statistically-significant increase in GPA in the former and a reduction in the achievement gap between minority and white students in the latter. In other words, while GPA and belonging are separate factors for *retention*, belonging may, in some cases, have an influence on GPA. This reinforces the importance of social belonging.

### ***Factors of Belonging***

Masika (2016) outlines several factors of student belonging. Firstly, a sense of belonging is fostered when teacher and peers accept, value, include, and encourage students. It's beneficial for students to help each other, work as a team, share goals, and contribute. Focus group participants in Masika's (2016) study valued mutual respect and peer support. Cemalcilar (2010) adds that a major factor of student belonging is a sense of satisfaction with social relationships at school, with positive relationships with peers being particularly important. This concept is corroborated by Sedgwick (2014), who find that, for minority nursing students at a western Canadian institution, a sense of belonging can be either helped or harmed by peer interactions.

Students felt like they belonged when they had positive interactions with students and felt like outsiders when excluded from interactions or when they experienced overt discrimination.

At the institutional level, Sedgwick (2014) finds that schools generally embrace statements about diversity and tolerance, but minority students report that these institutional attitudes are superficial when they experience discrimination and bias from students, faculty, and staff on a day-to-day basis, which negatively impacts their sense of belonging. Tachinea et al. (2017) report similar experiences for students who are Native American, who also experience disconnection from their home communities, and remind us that it's important to consider the effect of assimilation on students who are Indigenous. For example, Tachinea et al. (2017) point out that most current models of student belonging revolve around concepts of integration, which, for students who are Native, carries implicit values of assimilation. As an alternative to assimilation, Tachinea et al. (2017) find that, for this particular population, receiving respect from peers while not facing consequences for maintaining a strong cultural identity is an important factor of belonging, and that " Native ways of knowing tend to emphasize and enact interdependence" (p. 790).

Slaten et al. (2016) observed that belonging is a complex concept that encapsulates not only factors such as interpersonal interactions, but also the campus environment, including resources and services. The surveyed students were more likely to continue enrollment when they perceived that resources were available to them, and they also reported that the ability to utilize the campus environment was a factor in their overall sense of belonging. Consistent with Sedgwick (2014) and Tachinea et al. (2017), Slaten et al. (2016) report that the students in their study – international students from Asia – felt like experiences of bias and discrimination impeded their overall sense of belonging on campus.

## **Wellness Coaching**

### ***Wellness Defined***

Larcus et al (2016) consider “wellness” to be a complex whole that transcends the current medical model and encompasses dimensions such as psychological, emotional, and social functioning. The concept of wellness is not defined in terms of diagnosis and treatment, as with medical models, but instead focuses on engaging in behaviours that improve overall quality of life. To that end, Larcus et al (2016) conceptualize mental health and mental illness as two separate constructs, with mental health describing overall well-being, while mental illness describes the degree to which psychiatric disorders are present. This is useful in considering the specific case of a student who does not meet the criteria for a psychiatric disorder but is nevertheless experiencing challenges in biopsychosocial functioning. Wellness can broadly be conceptualized as a preventative sort of health care that encourages healthy behaviours for the purposes of avoiding future dysfunction (Adams, 2018; Gibbs & Larcus, 2015; Larcus et al, 2016).

### ***Wellness Coaching Defined***

Sforzo et al. (2017) define the general concept of Wellness Coaching – called “health and wellness coaching” in their literature review – as a client-centered intervention where practitioners build partnerships with clients to help them change behaviours using nonjudgmental conversation, goal setting, and accountability. Similarly, a study of wellness coaching as an intervention at a large Midwestern academic center defined the practice similarly: wellness coaching is a practitioner-client partnership meant to help clients progress towards their personal goals through cooperative goal setting, examination of motivation, and skill-building (Clark et al., 2016). Swarbrick et al. (2011) define a model of wellness coaching that is particularly

adaptable to the college campus. Again, wellness coaching is defined as a collaborative process to guide the client towards lasting behaviour changes. The wellness coach, as defined by Swarbrick et al (2011), is not a counsellor or a mentor who offers advice, rather, the wellness coach is a partner who helps the individual generate ideas for concrete, achievable steps towards behaviour change. The coach, who may be a peer of the person being coached, does not give out answers, rather, the role of the coach is to energize the person being coached to find their own solutions using questions designed to facilitate the client's understanding of themselves.

ACHA (2020) provide perhaps the most relevant conception of wellness coaching as it pertains to the college campus. Wellness coaching is a process where coaches create partnerships with clients to create self-directed change towards health and wellness goals through processes designed to provoke thought. Coaches, who may be fellow students, regard the client as the expert in their own lives and display unconditional positive regard for them, including a belief in their capacity to change. ACHA (2020) considers wellness coaching to be an intervention designed to impact multiple dimensions of overall well-being, with a particular goal of increasing self-awareness, self-efficacy, attainment of goals and skills, sustained behaviour change, and life satisfaction. Wellness coaching is strengths-based, with a particular focus on examining clients' own motivations, particularly through the technique of motivational interviewing, and using them as leverage in meeting clients' self-identified goals. Optimally, wellness coaching is part of a multidisciplinary continuum-of-care for college students, with coaches referring clients to other services, such as licensed mental health practitioners, as necessary.

### *Theoretical Foundations*

Foundational concepts of the diverse range of wellness coaching programs may include motivational interviewing, the transtheoretical model of change, self-determination theory, positive psychology, appreciative inquiry, self-authorship, or any combination of these things (ACHA, 2020; Gibbs & Larcus, 2015; Larcus et al, 2016).

**Motivational Interviewing.** Motivational interviewing is a style of communication that emerged from addiction treatment, but which can be used to sort through feelings of ambivalence and stimulate behaviour change in a wide variety of settings (Miller & Rollnick, 2013). In motivational interviewing, the practitioner does not position themselves as an expert with solutions, but rather considers the client as the expert in their own lives, with the practitioner's role being to carefully guide the conversation in a way that reinforces the client's own motivation to change. The practitioner accomplishes this by reflecting the client's feelings, reinforcing and encouraging clients' statements in favor of change (change talk), while deliberately spending less time on statements opposed to change (sustain talk). Open-ended questions are used to elicit feelings and build motivation, and practitioners affirm the client's own right to autonomy and self-determination. Clients are not told what to do, rather, the practitioner guides the client towards their own motivations and goals (Miller & Rollnick, 2013).

**Transtheoretical Model.** Also known as the "stages of change" model (ACHA, 2020), the transtheoretical model is perhaps best known for its five stages of change: precontemplation, contemplation, preparation, action, and maintenance (ACHA, 2020; Wu & Chu, 2015). The transtheoretical model conceptualizes behaviour change as a fluid process rather than a linear process (ACHA, 2020). The primary purpose of the transtheoretical model is to assess a person's readiness to change (Wu & Chu, 2015), considers relapse a normal part of the behaviour change

process (Prochaska & DiClemente, 1983), and can be used as a framework to set realistic goals based on the stage of change (ACHA, 2020). Miller and Rollnick (2013) consider the transtheoretical model to be largely compatible with motivational interviewing, so much so that they think of the two concepts as “kissing cousins that never married” (p. 35).

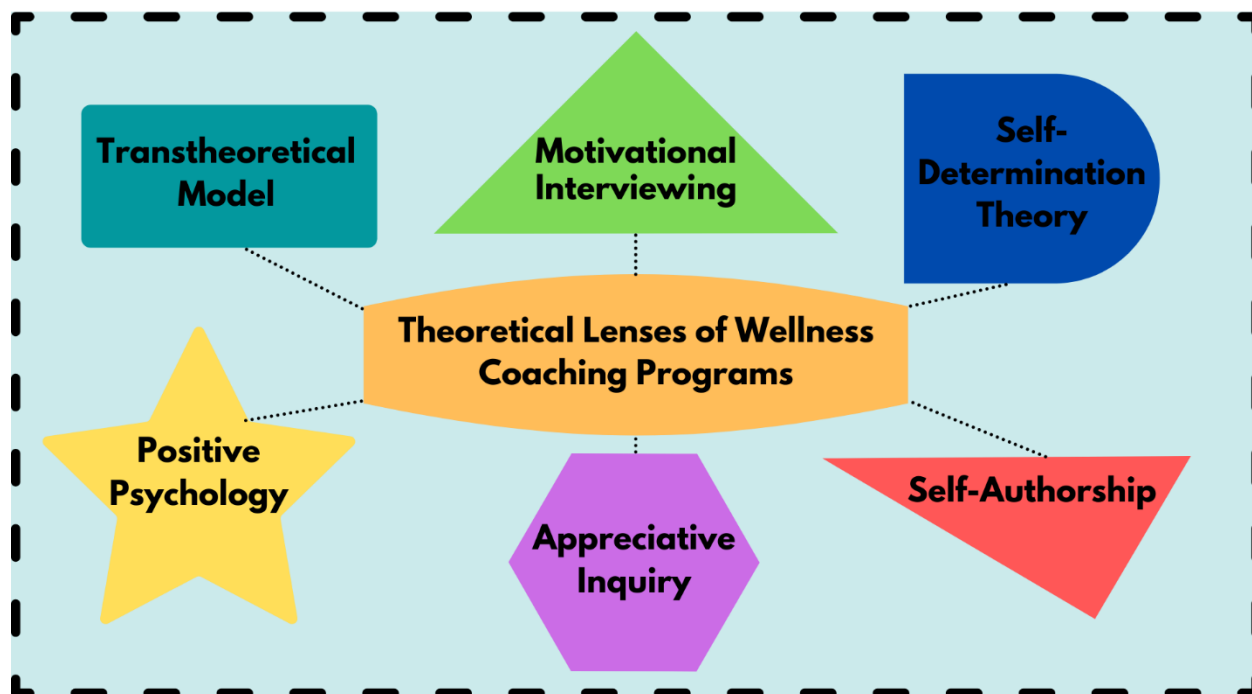
**Self-Determination Theory.** Self-determination theory can be summarized simply: people are more likely to pursue goals when the motivation is by choice rather than by coercion (ACHA, 2020; Deci & Ryan, 2008). Deci and Ryan (2008) consider this *autonomous motivation*, conceptualizing it as a combination of motivation that comes from within and a specific kind of external motivation that comes from a person having seen the value in certain activities and integrating this motivation into their sense of self. Deci and Ryan (2008) set autonomous motivation in contrast to *controlled motivation*, which is motivation by coercion, either through reward and punishment or internalized concepts of shame, approval, and so on. Self-determination theory posits that autonomous motivation is more likely to lead to long-term behaviour change.

**Positive Psychology.** Positive psychology is the concept that certain elements, such as positive emotion, engagement, relationships, meaning, and accomplishment, tend to nurture positive outcomes and the capacity of people to thrive (ACHA, 2020; Larcus et al., 2016). While critics conceptualize positive psychology as Pollyannish in nature, it ought to be understood that positive psychology is intended to form a balanced perspective that acknowledges deficits and challenges while placing an emphasis of the capacity for people to thrive and grow (Gibbs & Larcus, 2015; Larcus et al., 2016). The goal of integrating positive psychology into wellness coaching is to stimulate the development of self-care and coping skills (ACHA, 2020).

**Appreciative Inquiry.** Appreciative inquiry (AI) as a co-creative partnership between the practitioner and client that focuses on the kind of world that the client wants to build (ACHA, 2020). Appreciative inquiry concentrates on strengths, rather than deficits, with a particular emphasis on building strengths, resources, and solutions (ACHA, 2020). A central concept to appreciative inquiry is social constructivism, or the idea that conversation creates meaning, meaning influences perceptions, and perceptions of reality define how we experience reality (Sloan and Canine 2007). In other words, the “best way to predict the future is to create it” (p. 3). The principles of appreciative inquiry are most useful to wellness coaching as a framework from which to build resilience and well-being (ACHA, 2020).

**Self-Authorship.** Self-authorship is the “internal capacity to define one’s beliefs, identity, and social relations” (Baxter Magolda, 2008). When people practice self-authorship, they reject how external authority defines them, and, instead, define their own beliefs, identity, and social relations, while simultaneously considering the viewpoints of others through a critical lens. This is not to say that people who practice self-authorship are egocentric, rather, they decide for themselves how to best construct their relationships (Baxter Magolda, 2008). Sanders and Jackson (2015) consider self-authorship to be a form of cognitive maturity where people construct their own worldview and take responsibility for their own decisions. Wellness coaching on the college campus supports self-authorship by providing a nonjudgmental space where coaches use nonjudgmental questioning and reflection to encourage students to voice their own interests and values, which can assist them in sorting through the ambivalence of behaviour change (Larcus et al., 2016).

Figure 2.1

*Theoretical Lenses of Wellness Coaching Programs**Efficacy*

In a systematic review of 150 peer-reviewed journal articles, Sforzo et al. (2017) concluded that there is substantial evidence supporting wellness coaching as an effective tool for creating behaviour change. Their literature review concentrated in the use of health and wellness coaching techniques to treat chronic diseases, often diseases that are lifestyle related. While the study noted that results are often difficult to interpret, since health and wellness coaches are often part of interdisciplinary teams, results with respect to some behaviours, such as exercise, psychological outcomes, and nutrition are consistent across the literature. Clark et al. (2016) found that people who participated in the study's entire 12-session wellness coaching regimen had increased self-reporting of healthy behaviours, self-efficacy, and goal-setting skills,



maintaining these improvements after a 3-month follow-up. Overall, participants in the Clark et al. study reported a greater sense of well-being and personal health. While the purpose of the study was to evaluate wellness coaching as an intervention for physical health behaviours, such as regular exercise and weight management, and there were measurable decreases in participants' Body Mass Index, participants also experienced secondary benefits, including improvements in stress level and confidence in ability to manage stress, spiritual well-being, restfulness, and feelings of overall quality of life and health.

Dupree et al. (2013) examined a class that implemented the principles of wellness coaching and found that guiding students through a process of building motivation towards health and wellness goals was successful in terms of students meeting their goals (with 90% meeting their goals at the end of their class and 75% maintaining those goals at a 1-year follow-up). Moreover, these strategies were implicated in improving students' overall sense of well-being during the transition into college life. Gibbs and Larcus (2015) examined a wellness coaching program at a Midwestern university and evaluated its efficacy, finding that 90% of students reported that wellness coaching had provided them greater knowledge, awareness, and skills with respect to their personal wellness, with 84% reporting that wellness coaching had helped them set and achieve goals, and 83% reporting that they had gained efficacy around utilizing their own personal strengths. Students in the Gibbs and Larcus (2015) study generally reported a greater sense of positive perspectives, social connectedness, and engagement and determination towards their education. In other words, students were more optimistic about their personal and academic lives and had a greater sense of belonging, which has multiple implications for success and retention (Davis et al., 2019; O'Keeffe 2013; Silver Wolf et al., 2017; Walton & Cohen, 2007). Gibbs and Larcus (2015) also report that wellness coaching

helped students in terms of self-discovery, navigating the transition to college life, and self-acceptance, with one student commenting that they felt that wellness coaching sessions gave them confidence through untapped potential:

“Wellness coaching [is] aimed at helping you discover what type of person you are and how you can improve any area of your life. Instead of information being fed to you about ‘what you should do,’ the sessions [led] to self-discovery and unleashed the confidence through your strengths that you didn’t know you had!” (p. 29)

Furthermore, aside from the efficacy of wellness coaching in helping students meet their goals and gaining a sense of confidence and self-efficacy, Larcus et al. (2016) make it clear that wellness coaching is a proactive service designed to augment student mental health in an environment where fiscal constraints mean that traditional counselling services are often overwhelmed by demand, that is, wellness coaching may have efficacy towards rebalancing mental health service use on a macro level.

### *Secondary Benefits*

**The Benefits of Peer-to-Peer Interactions.** Of particular interest is a study conducted by Hoffman et al (2002). The authors found that when students provide and receive aid from other students around their challenges in adjusting to college, it helped them form mutually-rewarding connections with other students, which increased their overall sense of value in themselves and other students. Overall, these relationships aided students in coping with the transition to college life. In other words, peer-to-peer support relationships are a particularly helpful way to enhance college students' outcomes.

**Self-Efficacy.** Pearson (2012) identifies self-efficacy as a key factor in students' performance and degree completion, that is, students are more likely to persist in their tasks,

even when confronted with obstacles, when they believe that they will succeed. Similarly, Krumrei-Mancuso et al. (2013) identify self-efficacy as a key predictor of academic adjustment, higher GPA, overall persistence, college satisfaction, and retention of first-year college students. When students have confidence in their abilities, they are more likely to exercise them.

**Setting Goals.** Key psychosocial factors in college student performance, as measured by Krumrei-Mancuso et al. (2013) include self-efficacy, organization skills and attention to their studies, involvement with college activities, emotional satisfaction, and communication in class. Students do better when they feel confident about their abilities, manage their time well, are socially involved on-campus, are emotionally healthy, and are active participants in their learning experience. These are precisely the kinds of goals that wellness coaching can address (ACHA, 2020).

### **Theoretical Framework of this Study**

There are several factors affecting belonging that can be operationalized in terms of wellness coaching. For example, consider Samura's (2016) findings that part of belonging is a sense of being in the right major. In the study, it was found that students often found themselves feeling like their chosen major was inappropriate, and went through periods of ambivalence about making changes. The motivational interviewing style employed by wellness coaching is particularly suited to exploration of feelings, motivation, and ambivalence (ACHA, 2020; Miller & Rollnick, 2013). Chiu (2016) found that students' sense of belonging, even across cultures, is affected by a sense of self efficacy, findings that are consistent with Pearson (2012) and Krumrei-Mancuso et al. (2013). Again, participating in wellness coaching is associated with increased feelings of self-efficacy (Clark et al., 2016). Vaccaro (2015) highlights three interconnected themes that affect belonging for students with disabilities: relationship building,

academic mastery, and self-advocacy. Wellness coaching can have an effect on all three of these themes. The wellness coach is not an authority who gives orders, rather, the wellness coach seeks to build partnership with the client towards the client's wellness goals (ACHA, 2020; Sforzo et al., 2017; Swarbrick et al., 2011). The peer-to-peer interaction with the wellness coach can be considered a form of relationship building, while academic mastery and self-advocacy can be operationalized as wellness goals.

One of the foundational aspects of wellness coaching is unconditional positive regard, that is, wellness coaches accept, value, include, and encourage students (ACHA, 2020). This is precisely how Masika (2016) described peer interactions that enhance a sense of belonging, and is also congruent with the particularly important effect of positive relationships with peers (Cemalcilar, 2010). The wellness coach accepts and respects the client for who they are, regardless of their identity. This must be considered in the context of the experiences of students who are members of minority populations (Sedgwick, 2014; Slaten et al., 2016; Tachinea et al., 2017). More concretely, the wellness coach can promote belonging by connecting clients to campus resources and services or helping them set goals around participating in activities on-campus (ACHA, 2020; Duran et al., 2020; Slaten et al., 2016).

### Chapter III: Methodology

In light of the fact of the positive impacts of students' overall sense of belonging, which includes improved adjustment to the university environment, greater retention, improved GPA, and reductions in achievement gaps between Caucasian and minority students (Davis et al., 2019; O'Keeffe, 2013; Pittman & Richmond, 2008; Silver Wolf et al., 2017; Walten & Cohen, 2007), and the factors of belonging that are potentially affected by participation in wellness coaching across a diversity of different groups of students (ACHA, 2020; Cemalcilar, 2010; Chiu, 2016; Clark et al., 2016; Duran et al., 2020; Krumrei-Mancuso et al., 2013; Masika, 2016; Pearson, 2012; Samura, 2016; Sforzo et al., 2017; Slaten et al., 2016; Swarbrick et al., 2011; Tachinea et al., 2017; Vaccaro, 2015), it would seem *a priori* that whether or not there is a measurable association between participation in wellness coaching and an increased sense of belonging ought to be studied.

To that end, one of the wellness coaches from the 2019-2020 academic year, who was also a Master of Social Work student, performed a study that examined SCSU Wellness Coaching's own internal surveys, which are used to track client satisfaction with the services offered as well as whether or not participating in coaching helped clients feel that they belonged to campus. This study found that, when considering internal surveys, there is a measurable relationship between participating in coaching and a sense of belonging, and concluded that future study was justified (O'Hara, 2020).

With respect to this potential link between wellness coaching and belonging, St. Cloud State University is uniquely positioned to study whether or not this link can be measured. Not only has the university implemented a wellness coaching program, but it is also the site of the study by Davis et al. (2019). That study is part of an ongoing project to measure SCSU students'

overall sense of belonging, and, to that end, the Belonging Initiative runs a survey early in both the spring and fall semesters every year. The purpose of this survey is to measure cohorts of students in both semesters of the freshman year, the first semester of the sophomore year, and the first semester of the senior year. Students who take these surveys can be tracked by their student ID. SCSU Wellness Coaching, of course, maintains its own client records, including the student IDs of clients. Last year, as part of the O'Hara (2020) study, an examination of data from the Belonging Initiative was considered, but ultimately not pursued.

This study continued where O'Hara (2020) left off. In the 2019-2020 academic year, the SCSU Wellness Coaching program provided services to 83 clients. The Belonging Initiative agreed to share data with SCSU Wellness Coaching for the purposes of this study, and the university approved our use of their data under IRB protocol #2015-2622 (Appendix A). Because both programs track data by student ID, it was possible to cross-reference SCSU Wellness Coaching's client list with the Belonging Initiative's data. Because it was unknown before we received the data how many, if any, students were represented on both lists, multiple data analysis strategies were proposed.

## **Research Design**

This study was a secondary data analysis designed to examine whether or not participation in wellness coaching at St. Cloud State University had a measurable impact on SBI scores. Because the Belonging Initiative had already measured a large sample of students at multiple points in time, it was possible, using student IDs, to cross-reference the list of wellness coaching clients from the 2019-2020 academic year. This allowed for an analysis of client data to determine if there was a change in scores from one SBI survey to the next. SBI data is collected on a per-semester basis using a Qualtrics (Qualtrics, 2018) survey which consists of twenty

questions: ten questions relating to academic belonging and ten questions relating to social belonging (Davis et al., 2019). Each of these questions is rated on a five-point Likert scale, and the students' overall sense of belonging in each category (academic or social) is computed by averaging their scores across all questions in that category. Students are then organized into several levels of belonging – high, medium, low, and no answer (Davis et al., 2019).

### **Participants**

The participants in this study were students who participated in SCSU Wellness Coaching in the 2019-2020 academic year, and who also participated in the Belonging Initiative's Sense of Belonging Index (SBI) survey prior to and after participating in wellness coaching. In the 2019-2020 academic year, SCSU Wellness Coaching provided services to 83 students. Ultimately, one wellness coaching participant had an SBI score after the intervention semester, while there were 7 data points prior to either intervention semester. Because it was inappropriate to compare one post-intervention score to 7 pre-intervention scores, and because the sole client who had a post-intervention score *also* had a pre-intervention score, we consider the total number of participants to be one.

### **Measures**

The intent of this study was twofold: first, to examine whether or not participating in wellness coaching is associated with an increase in the overall sense of belonging of wellness coaching clients as operationalized in the social belonging index component of the SBI survey. A secondary purpose was to evaluate the process so that it could be used as a template for further study. To accomplish this, scores on the most recent SBI survey prior to participating in wellness coaching were compared to scores on the first available post-intervention SBI survey. Because the SBI survey runs early in the semester, and wellness coaching appointments typically begin to

trickle in shortly afterwards, for the purposes of this study it was considered acceptable to use SBI scores in the same semester that a client participated in wellness coaching if no prior data was available (as the sole client who met the criteria participated in wellness coaching and took an SBI survey in the fall of 2019, this was precisely what happened). The SBI data, which is owned by the Belonging Initiative, was collected via a survey administered in Qualtrics (Qualtrics, 2018).

### ***Variables***

SBI scores for a particular student are treated as numerical variables on a ratio scale for data analysis, and answers to the questions on the survey are averaged to form a final score for both the academic belonging and social belonging categories (Davis et al., 2019). For this reason, the dependent variable, that is, SBI scores, in this study were treated in the exact same manner. The independent variable for this study was the presence of the wellness coaching intervention.

### **Data Collection**

This study analyzed existing data that were collected by, and belong to, the SCSU Belonging Initiative. Two lists of wellness coaching clients from the 2019-2020 academic year were compiled in Microsoft Excel format. The first list was the names and student IDs of clients who participated in wellness coaching in the fall, 2019 semester. The second list was the names and student IDs of clients who participated in wellness coaching in the spring, 2020 semester. This process was completed early in the fall semester on the understanding that, after we received IRB approval for existing data analysis, we would send the lists to the SCSU Belonging Initiative, who would, in turn, send back the SBI data with all identifiers (such as names and student IDs) removed as a layer of protection. In this way, while the list of potential data points



would be known to us, whose scores we actually received would be unknown, and thus anonymous.

As part of the IRB process, we engaged in further discussions with Dr. Hanzsek-Brill around the particulars of the IRB protocol that was used to gather the original data. This information was necessary to complete the IRB protocol for this study. During these discussions, it became apparent that it would greatly speed up the data mining process on the SCSU Belonging Initiative's side if the clients were somehow organized in a similar manner to the way they are organized in the raw SBI data - that is, by when the students entered as freshmen. And so, after receiving IRB approval to collect data from the SCSU Belonging Initiative under protocol #2015-2622 (Appendix A), the two client lists were further processed. This entailed using the student IDs to find which semester each student first enrolled at SCSU. After this information was entered for each student, the two client lists were organized by entry semester. Once this process was complete, the available data, in anonymized form, were sent back. Again, the results were separated between the Fall, 2019 and Spring, 2020 groups. Because the SBI data include both the survey number and the entry semester for each student, it is possible to track which semester each survey was taken in. For example, if a student first enrolled at SCSU in the fall of 2019, and had a score in the first and third semesters, then we would know that the first score was from the fall of 2019 and the second score was from the fall of 2020.

## Definitions of Statistical Terms

Statistical terms used in this data analysis are defined in Table 3.1.

**Table 3.1**

*Definitions of Statistical Terms*

Term	Definition
Paired sample T-test	A test used to measure the difference in mean values between two groups that are not independent, for example, two measurements from the same group of people (Xu et al., 2017).
Standard Deviation (Sample)	A measure of how spread out the sample is around its mean (Stark, 2020).
T-Test	A test designed to measure whether or not the means of two samples have the same values. The outcome of a t-test is the ratio between the difference between sample means and the sample standard deviation of the sample mean difference (Xu et al., 2017).
Two-sample T-test	A test used to measure the difference in mean values between two groups that are independent, for example, between a control and intervention group (Xu et al., 2017).
Variance (sample)	The square of the sample standard deviation (Stark, 2020).

## Data Analysis

### *Strategies*

Because it was unknown how many, if any, of the students who participated in SCSU Wellness Coaching in the 2019-2020 academic year were represented in SBI survey data, it was necessary to account for multiple scenarios. Therefore, two potential strategies were devised. In either case, the data analysis would have easily been performed with Microsoft Excel's built-in t-test tools.

**Strategy 1.** The ideal strategy would occur if multiple clients first participated in an SBI survey before or during the semester that they also participated in wellness coaching, then participated in a subsequent survey. Because the client list was been split into two groups, fall, 2019 and spring, 2020, it would be possible to locate any SBI scores before or after participating in coaching. In this scenario, scores on the most recent pre-intervention survey would have been compared to scores on the first available post-intervention survey. For this purpose, a paired sample T-test would have been optimal because this would have been a *repeated measures* strategy – that is, comparisons would have been made between multiple measurements, taken at different times, from the same group of people.

**Strategy 2.** We concluded early on that it was unlikely that many of the 83 students on the two client lists would meet the criteria for strategy 1. However, we figured it was likely that there would be SBI scores from surveys run during or prior to the intervention semester. We figure it was also likely that there would be SBI scores from surveys run after the semester. While it might not have been practical to match a pre-intervention score to a post-intervention score for any individual student, it would have been possible to compare the most recent pre-intervention scores as a whole to the first available post-intervention scores as a whole. A two-

sample unequal variance T-test would have been optimal for this purpose because the pre-intervention and post-intervention scores would not necessarily have been from the same exact people. In this scenario, it seemed safest to assume that the variance between the two groups would not be the same.

**The Final Strategy.** After receiving the processed data, the first task was to sort through what we received and then decide which analysis strategy to use. As it turned out, neither analysis strategy was appropriate: while several students had taken a survey in the first semester of the freshman year, only two had taken a survey afterwards. Of those two students, only one had an SBI score after either of the intervention semesters. This particular student took an initial SBI in the fall of 2019, participated in Wellness Coaching in the Fall of 2019, and then took another SBI survey in the fall of 2020. While this student would have otherwise meet the criteria for strategy 1 - having both a pre-intervention and a post-intervention score - as the sole data point, it was not appropriate to run any statistical tests. Similarly, it was not appropriate to compare the bulk of pre-intervention scores from other students to this single post-intervention score. In the end, it was decided that the most appropriate strategy was to simply report the pre-test and post-test scores for that student.

### **Methodological Considerations**

While neither proposed strategy was viable, and an alternate strategy was devised, there remained some methodological considerations which were independent of the particular strategy employed.

### ***Ethics***

While there is a strong collaboration between SCSU Wellness Coaching and the Belonging Initiative, and it's common for both programs to share data in intervening with at-risk

students (particularly students who score low on the SBI survey or who do not respond to the survey), this sharing of confidential data nevertheless carries potential risks, including accidental or inappropriate disclosure. This is particularly relevant in that, while the data that was received from the Belonging Initiative lacked identifiers, the data sent to the Belonging Initiative, by necessity, included identifying information for the clients on the list. The client lists were, therefore, shared via SCSU's existing cloud services, which provided protection against improper transmission so long as the correct email address was used for the recipient. That the university's cloud services are password-protected was another layer of protection in the service of minimizing risk, as is the fact that all received data from the Belonging Initiative had identifiers removed.

Any risks associated with the use of this data must be weighed against the potential benefit to students. Wellness coaching at St. Cloud State University is still in its infancy, and evaluating its effectiveness is a necessary process under section 1.04c of the NASW Code of Ethics (NASW, 2017):

"When generally recognized standards do not exist with respect to an emerging area of practice, social workers should exercise careful judgment and take responsible steps (including appropriate education, research, training, consultation, and supervision) to ensure the competence of their work and to protect clients from harm."

The purpose of SCSU Wellness Coaching is to empower students, assisting them in increasing their ability to set and achieve goals, their sense of belonging, and their ability to initiate and maintain wellness-related behaviours and take steps towards being the persons that they want to become (St. Cloud State University, 2020). In that vein, it is necessary to evaluate if

the program is accomplishing those very things. As this study aimed to examine whether or not the program is increasing students' sense of belonging, it is in line with evaluating whether or not the program is meeting a portion of its purpose.

## Chapter IV: Results

The collected SBI scores are summarized in Table 4.1.

**Table 4.1**

***SBI Data (n=1)***

Intervention Semester	Pre-Intervention Score	Post-Intervention Score
Fall, 2019	3.2 (Low)	3.0 (Low)

Table 4.2 summarizes the total number of survey responses per semester.

**Table 4.2**

***Number of Survey Responses***

Intervention Semester	Total Pre-Intervention Scores	Total Post-Intervention Scores	Clients represented in SBI Data
Fall, 2019	4	1	3
Spring, 2020	3	0	3
Total	7	1	6

## Chapter V: Discussion

The main purpose of this study was to use any available data to measure whether or not participation in wellness coaching had an impact on clients' sense of belonging. Because only one student met the study criteria, it's unfeasible to draw any conclusions at this time. However, as a pilot study, the second purpose was to test the process. This entailed several goals, which included: (1) to test the process of sending client data to the SCSU Belonging Initiative; (2) to develop the methods of analysis; (3) to verify that the scores could, in fact, be placed chronologically with respect to the intervention semester; and, overall, (4) to determine if this strategy will be a viable method of evaluation in the future. The project met all of these goals.

### Summary of Major Findings

#### *Primary Purpose: The Impact of Wellness Coaching on Belonging*

Only one student had an SBI score after their intervention semester, and it just so happened that this student also had a pre-intervention score. For this reason, it was possible to compare the two scores, however, drawing any conclusions from this single data point is problematic. While a significant effect across a larger number of clients, using either data analysis strategy, would indicate a correlation between participation in wellness coaching and belonging, with a single student, any effects might easily be explained by confounding variables such as the COVID pandemic or individual factors for that particular student. We must conclude that the results on the relationship between wellness coaching and belonging are inconclusive.

#### *Secondary Purpose: Testing the Process*

**Goal 1: Testing the Process of Sending Data.** Conceptually, it would have been easy to send the data out as a list of student IDs, wait a while, and then get back data for those clients matched to their IDs. In reality, such a process is problematic for both technical reasons and



reasons of protection. On the technical side, the people involved with the SCSU Belonging Initiative, as faculty, have busy schedules and other duties. Sending out a large list of student IDs without some kind of formatting would have made the process of retrieving data time-consuming and difficult. It would have also ignored the reality that SBI data are organized into cohorts in the service of creating a longitudinal analysis of those cohorts. Because we greatly value the partnership of the SCSU Belonging Initiative, we decided that finding a method to organize the data that would make it easier to work with was not only practical, but simply the right thing to do.

In terms of protection, it's important to remember that SBI data are confidential and contain student IDs and contact information. Ethically, it was important to protect students' data by requesting the bare minimum that was necessary for our purposes. This also solves another technical problem: receiving IRB approval. We saw the fact that we would be receiving anonymized data back as a key selling point to the IRB because of the additional layer of protection.

When it became apparent that we would need to receive anonymized data, we realized that we would also need to create a system of organizing the client lists so that the inbound SBI data could be useful for the purposes of this study. This meant, firstly, organizing the client lists by semester. Secondly, this meant organizing the data within those lists by cohort in some way. This serves the dual purpose of making it easier on the part of the SCSU Belonging Initiative to locate data for each student and making it easy for us to determine which semester each SBI data point was located in. Because the SBI survey is administered to new incoming freshmen in the initial semester, with follow-up in the following semester, the first semester of the sophomore year, and the first semester of the senior year, the simplest way to accomplish this was simply to

organize the student IDs into groups in the list by students' first semester at SCSU. This organization process worked exactly as intended, making it easier to locate groups of student IDs within the SBI cohorts.

**Goal 2: Developing the Methods of Analysis.** As discussed previously, when we sent the client data out, there was no guarantee that we would receive anything back, and, if we did, there was no guarantee that what we received would work for any particular analysis method. For this reason, it was necessary to develop multiple analysis methods. While neither of these methods proved feasible with a single point of data, the methodology is still sound, and can serve as a template for future evaluations using this process.

**Goal 3: Verifying that Scores Could Be Organized Chronologically.** The organization structure that was created to solve the problems of sending the client data out was hypothesized to solve another technical problem: how to sort those scores chronologically once the data were retrieved. This organization structure worked precisely as we intended. The data we received were organized by cohort, meaning we always knew, chronologically, when the first survey for each student was, making it easy to determine when other surveys were taken. As an example, the third score for a student in the fall, 2019 cohort would be for the fall of 2020, even if the student skipped a survey, since non-responses are recorded.

**Goal 4: Determining the Viability of This Strategy.** It must be reiterated that, while there was not enough data to draw any conclusions about the relationship between wellness coaching and belonging, as an all-up test of a new process for evaluating the SCSU Wellness Coaching program, the mechanical parts of this study performed precisely as designed, with the exception of the analysis strategies, which were unnecessary with a single data point. In the future, as the SCSU Belonging Initiative acquires more data, and SCSU Wellness Coaching sees

more clients, a larger library of data could be collected for a future evaluation to analyze using the basic methods piloted by this study.

## **Limitations and Strengths**

### *Limitations*

A major limitation of this study was a relative lack of data resulting in a sample that was inadequate to draw any firm conclusions about the relationship between SCSU Wellness Coaching and belonging. It was never likely that the sample sizes would have been very large. The total number of students on both the fall, 2019 and spring, 2020 client lists was 83, and while several students did take an initial SBI in the first semester of their freshman year, very few took additional SBI surveys. In fact, only two students on our lists had an SBI score after the initial score, and only one of those was post-intervention. It's helpful to consider that roughly 56% of all incoming freshmen responded to the survey in 2017 (Davis et al., 2019). Because it was impractical to incorporate a control group, there was a threat to internal validity since any changes in SBI scores could potentially be related to a general increase in the sense of belonging over time of students who chose to remain enrolled. One of the primary factors in student attrition is a low sense of belonging (O'Keeffe, 2013), so it's possible that students who did not receive any benefit from participating in wellness coaching simply dropped out before taking another SBI survey, and that this was reflected in the general lack of data. A particular limitation would have occurred if analysis strategy 2 had been employed. In this scenario, the analysis would not have reflected changes in the same group of clients in time. Finally, it's possible - perhaps likely - that the COVID-19 pandemic was problematic in several ways. For example, the one student who had an SBI score after the intervention took their second survey in the fall of 2020. To what degree did the score reflect on Wellness Coaching, and to what degree was the

pandemic a confounding variable? While conversations with the Belonging Initiative staff made it plain that the SBI response rate was not affected by the pandemic, SCSU Wellness Coaching experienced significant decreases in participation overall.

### ***Strengths***

A strength of this study was that it took advantage of the existing strengths of the Davis et al. (2019) study, including its ability to accurately summarize student belonging with a short survey instrument that has been verified with comparison to a much more extensive instrument. This study analyzed existing data with personal identifiers removed, meaning the data analysis posed a low risk to the participants in the original surveys. The original data analysis strategies were also a source of strength in the way that they were created to mitigate the risk of having little data. As an example, analysis strategy 1 would have tracked scores across a single group of students both before and after the intervention, meaning it would have been easy to track changes with respect to the intervention. The contingency plan - analysis strategy 2 - was designed to complement strategy 1 in the case that available points were scattered among students. Finally, the system used to organize the client data made out client lists compatible with the SBI data in terms of being organized by cohort. This solved a number of potential technical problems, and is what allowed us to use anonymized data in the first place.

### **Recommendations for Future Research**

The basic template of this study will be useful for future analysis of SBI data from the SCSU Belonging Initiative. These processes can be reused and adjusted as more data become available. However, there are several ways to improve upon this evaluation process. Firstly, this must be an ongoing process. Secondly, increasing the number of clients that are seen by SCSU Wellness Coaching in a given year will increase the number of potential matches in the SBI data.

Thirdly, SCSU Wellness Coaching may refine its own internal evaluation tools to complement future SBI studies. And, finally, increasing the number of students who take the SBI survey each semester would also increase the number of potential matches in the SBI data.

### ***SBI Evaluation as an Ongoing Process***

As a result of this study, we know that there are several pre-intervention data points and a single post-intervention data point represented in the current SBI data. But it's important to remember that the SCSU Belonging Initiative and SCSU Wellness Coaching are both relatively new programs, so the passage of time will be reflected in larger amounts of data with each passing year. It's critical for SCSU Wellness Coaching to continue this process of evaluation to determine if it's meeting the goal of increasing students' sense of belonging.

### ***Increasing the Number of Clients***

Increasing the total number of clients seen in any given academic year will proportionally increase the likelihood that clients will be represented in the SBI data. As part of this study, grant funding was received from the University to support SCSU Wellness Coaching in outreach and advertising to potential clients as well as the retention of current clients. The money was used to purchase advertising on social media, to purchase new signage, to purchase incentives for students to participate in wellness coaching, and to purchase incentives for students to take post-session surveys. All of this was in the service of attracting and retaining clients. At the time of writing, current initiatives at SCSU Wellness Coaching include a referral program, which uses gift cards as an incentive for students to refer their friends, as well as a similar program that provides gift cards to clients for completing an initial session of wellness coaching. Word-of-mouth is a potent influence on people's perceptions of a product or service (Sweeney et. al, 2007), so students who have positive experiences and then go on to refer other students can

potentially affect the number of their peers who participate in wellness coaching in a positive way.

### ***Modifying Internal Evaluation Tools***

As part of its ongoing program evaluation, SCSU Wellness Coaching runs several surveys. The first is a five-question post-session survey that is offered to all clients at the end of every session. The second is a longer, 10-question survey that is run at midterm and finals in every semester. These surveys are analyzed throughout the year, generally at the end of the semester, and are intended to measure how clients feel about our program. Both surveys gather data that are a proxy for belonging. Previous evaluations of this data determined that students' self-reporting indicated an increase in overall level of belonging (O'Hara, 2020). However, as a result of this study, we learned that the SCSU Belonging Initiative measures overall sense of belonging with a survey that is only 20 questions long, with 10 of them dedicated to social belonging (Davis et al., 2019). As social belonging is the factor that SCSU Wellness Coaching analyzed and is most concerned with, a future opportunity would be to find ways of incorporating this empirically-verified tool into our internal surveys. If clients were to take these surveys multiple times, it would provide a direct measurement of changes in their social belonging over time (however, as clients with positive experiences are probably more likely to take these surveys, this has the potential to create a bias in the data, meaning that continued evaluation of the external SBI data, and comparisons between the data sets, will still be necessary).

### ***Increasing the Number of Students Taking the SBI Survey***

Another potential way that the number of matches between wellness coaching client lists and the SBI data could be increased would be to increase the number of students taking the SBI

surveys in any given semester. Of the 83 clients across both lists, a total of six were represented in the SBI data (Table III). It will, therefore, be helpful to future evaluation of the SCSU Wellness Coaching program if a method to increase general participation in the SBI surveys can be devised.

### **Conclusions**

There was not enough data in the SBI sample to support or reject the hypothesis that participating in wellness coaching is associated with a positive change in belonging. In fact, the sole participant who was represented in the data experienced a minor decrease in their sense of belonging, which could be attributed to any number of factors, including the COVID-19 pandemic or individual factors. However, this study has shown that this general analysis strategy has merit and can be used again in the future.

### ***Implications for SCSU Wellness Coaching***

This study was unable to determine if SCSU Wellness Coaching is meeting the stated goal of increasing students' sense of belonging (St. Cloud State University, 2020). If the program is to continue to receive funding and support from the university, it will be critical that evaluation, including analysis of future SBI data, be a continuous process over time so that SCSU Wellness Coaching can demonstrate its value to the University. Part of this will be continuing the process of attracting and retaining clients using methods such as incentives for completing a first session or referring a friend; continued social media presence and the use of advertising in social media; continued on-campus outreach, including events organized by wellness coaches; and increased overall awareness on-campus of this relatively new resource.

### ***Implications for the University***

The University has taken a proactive approach in attacking the problem of student belonging by not only measuring students' sense of belonging, but also by using the work done on the part of the SCSU Belonging Initiative to "identify ways our campus can promote social and academic belonging more broadly" (Davis et al., 2019, p. 126). SCSU Wellness Coaching is part of this picture of student services that are intended to foster a sense of belonging. As both programs are in their infancy, it will be important for the University to continue to nurture and support both of these programs as they grow together and attack the problem of student belonging. Through this continued support, the SBI data will grow, and more thorough analysis will be possible.

### ***Implications for Social Work Practice***

SCSU Wellness Coaching has been, and presently is, a field placement site for Master of Social Work students at St. Cloud State University and employs a clinical social worker in a supervisory role. As such, the program incorporates major elements of the social work perspective, including client self-determination, informed consent, cultural humility and valuation of diversity, privacy and confidentiality, interdisciplinary collaboration (with RRC, CAPS, the medical clinic, and other campus services where students may be referred to or who may refer students), referral to more appropriate services when clients request it, and clear distinctions of qualifications in the service of avoiding misrepresentation. All of these perspectives are congruent with the NASW Code of Ethics (NASW, 2017) and are broadly indicative of the influence that social workers can have in higher education settings. Congruently, part of the accountability that is expected by both the University and the profession



is the evaluation of the program in the service of our competence and the ethical obligation to perform interventions that benefit clients (NASW, 2017).

It's worth noting that this study was performed by a Master of Social Work student and was informed by social work perspectives, much as the program has been informed by those same perspectives. Because of this, social work values have played a key part in the conceptualization of the program, the program's overall goals, and the metrics used for evaluation. It's certainly important that belonging in a stronger prediction of retention than GPA (Davis et al., 2019). It would be easy to lay out a purely financial case for our program outcomes (and, certainly, it's in the program's best interest to provide value to the university). However, as a values-based profession, social work is uniquely positioned - in terms of program administration, university policy, and direct practice with students - to critically examine the machinery of higher education in the service of remaining faithful to the growth and development of students, which is, after all, the reason that institutions of higher education exist in the first place.

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## Appendix A: IRB Application



**OFFICE OF RESEARCH AND  
SPONSORED PROGRAMS**  
ST. CLOUD STATE UNIVERSITY

### Institutional Review Board Protocol For The Use of Existing Data Involving Human Subjects

#### PROJECT

<b>Project Title:</b>	The Effect of Wellness Coaching on Sense of Belonging Index Scores
<b>Project Start Date:</b>	08/24/2020
<b>Project End Date:</b>	05/02/2021

#### RESEARCHER(S)

##### Principal Investigator

First Name	Last Name	Status (Select One)	Email	Phone Number	IRB Training Completion Date
Nigel	Westbrook	<input type="checkbox"/> faculty/staff <input type="checkbox"/> undergraduate <input checked="" type="checkbox"/> graduate masters <input type="checkbox"/> graduate doctoral	nigel.westbrook@go.stcloudstate.edu	320-241-9601	10/06/2020

##### Co-Investigator/Research Assistant

First Name	Last Name	Status (Select One)	Email	Phone Number	IRB Training Completion Date
Click or tap here to enter text.	Click or tap here to enter text.	<input type="checkbox"/> faculty/staff <input type="checkbox"/> undergraduate <input type="checkbox"/> graduate masters <input type="checkbox"/> graduate doctoral	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
Click or tap here to enter text.	Click or tap here to enter text.	<input type="checkbox"/> faculty/staff <input type="checkbox"/> undergraduate <input type="checkbox"/> graduate masters <input type="checkbox"/> graduate doctoral	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.

##### Faculty Mentor/Course Instructor (if Principal Investigator is a student):

First Name	Last Name	Email	Phone Number	IRB Training Completion Date
Sara	DeVos	sara.devos@stcloudstate.edu	320-308-2981	Click or tap here to enter text.


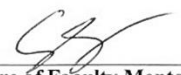
ALL Principal Investigator(s) and faculty mentor(s) are required to completed SCSU's required CITI IRB training, <https://www.citiprogram.org/>

If you collaborate with an individual from another institution, we may be able to use an Authorization Agreement with another institution's IRB. Contact [ResearchNow@stcloudstate.edu](mailto:ResearchNow@stcloudstate.edu) for more information.

#### SPONSORS

<b>Is there external funding source(s) for this project?</b>	
<input checked="" type="checkbox"/> No <input type="checkbox"/> Pending <input type="checkbox"/> If Yes, please provide Funding Agency/Sponsor name and account number.	
<b>Funding Agency/Sponsor:</b>	Click or tap here to enter text.
<b>Account #:</b>	Click or tap here to enter text.

### CERTIFICATION STATEMENT

<i>fw</i> PI Initial here	As <b>Principal Investigator</b> , I certify that the information provided in this protocol represents a complete and accurate description of the proposed study, this study will not begin until IRB approval is received, and this study will be conducted in compliance with IRB recommendations and requirements.
<i>fw</i> PI Initial here	As <b>Principal Investigator</b> , I understand that modifications, significant new finding which develop during the course of the study or increase the risk of participant, or reporting to the IRB any adverse or unexpected events, and that protocols approved as expedited or full require an annual/final report (protocols approved as exempt do not require continuing review/final report process). To submit a Continuing Review/Final, please complete the <b>Continuing Review Form</b> .
<i>GW</i> Faculty Mentor Initial here	As <b>Faculty Mentor</b> , I certify that I have reviewed this protocol and that I attest to the scientific merit of this study. I will advise and provide continued guidance to support the study as appropriate for the student's academic development.
 _____ Signature of Principal Investigator	<u>02/11/2021</u> _____ Date
 _____ Signature of Faculty Mentor/Course Instructor	<u>2/11/2021</u> _____ Date

### PROJECT DESCRIPTION

<p><b>1. Project Summary/Abstract (Limited to 250 words):</b></p> <p>This project will measure whether or not participation in Wellness Coaching has an impact of students' sense of belonging, as operationalized by scores on the Sense of Belonging Index (SBI) surveys run by the SCSU Belonging Initiative at the start of each semester. As increasing students' overall sense of belonging is a major purpose of the SCSU Wellness Coaching program, it is imperative that we measure whether or not we are meeting that purpose.</p>
<p><b>2. Purpose of the study (Limited to once sentence):</b></p> <p>The purpose of this study is to find out if there is an impact on SBI scores associated with participating in SCSU Wellness Coaching.</p>
<p><b>3. Research question(s), if applicable, include hypothesis (150 words or less):</b></p> <p>The research question is as follows: "Does participation in wellness coaching have an effect on SCSU students' overall sense of belonging?" This study hypothesizes that students who participate in wellness coaching at St. Cloud State University will show a significant increase in sense of belonging, as measured on the social belonging index component of the SCSU Belonging Initiative's Sense of Belonging Index survey data.</p>
<p><b>4. Research design, if applicable, include independent/dependent variables (150 words or less):</b></p> <p>This study is a secondary data analysis designed to examine whether or not participation in wellness coaching at St. Cloud State University (the independent variable) has a measurable impact on SBI scores (the dependent variable). Because the Belonging Initiative has already measured a large sample of students at multiple points in time, it will be possible to send the student IDs of wellness coaching clients to the Belonging Initiative and receive a anonymized data for each person on the client list who has taken an SBI survey.</p>
<p><b>5. Describe all methods and procedures you will perform (150 words or less):</b></p> <p>We have two lists which includes student IDs: one for clients whose first session was in the fall 2019 semester and another for clients whose first session was in the spring 2020 semester. The first step will be to send these lists to the Belonging</p>

**Initiative. We will then receive a set of data for each list, containing all SBI scores for any students on the client lists, but with all identifiers removed.**

**If there are students who participated in wellness coaching between multiple SBI surveys, we will simply analyze the differences between scores for those students with a paired T-test. This is an unlikely scenario. As a backup plan, the available SBI scores prior to the intervention semester and available SBI scores after the intervention semester can be compared using a two-sample unequal variance T-test.**

## PRARAMETERS OF EXISTING DATA

6. To proceed with this form, ALL of the following must apply to request an existing data IRB review:		
Yes	No	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Proposed project is a systematic investigation, including research development and testing
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Proposed project is designed to develop or contribute to generalizable knowledge.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Research involves the analysis of existing data, documents, records, pathological specimens or diagnostic specimens which was gathered from human beings.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	No new data will be collected from participants for this project. - If new data will be collected, stop here and complete the "IRB protocol for Conduct of Research involving Human Subjects" - If no new data will be collected, continue with this protocol.

7. How were the data originally collected?		
<input type="checkbox"/> IF existing data from the classroom was NOT obtained through: active manipulation, testing a research question, course activities, outcomes and/or evaluations which deviated from those defined in the original syllabus, or having a research agenda when the data were gathered, complete the following: Data were obtained through the classroom using standard educational practices/classroom/workshop/data/program evaluation (Check all that apply):		
Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	All students received the same syllabus at the beginning of the course
<input type="checkbox"/>	<input type="checkbox"/>	All students were expected to participate and complete the activities outlined in the syllabus.
<input type="checkbox"/>	<input type="checkbox"/>	Classroom procedures did not involve a control group
<input type="checkbox"/>	<input type="checkbox"/>	Anonymous data obtained from the SCSU Office of Strategy, Planning and Effectiveness.
<input type="checkbox"/>		Other, please explain: <a href="#">Click or tap here to enter text.</a>
<input type="checkbox"/> IF source for the data is publicly available but the dataset is not, complete the following.		
Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	All students received the same syllabus at the beginning of the course
<input type="checkbox"/>	<input type="checkbox"/>	All students were expected to participate and complete the activities outlined in the syllabus.
<input type="checkbox"/>	<input type="checkbox"/>	Classroom procedures did not involve a control group
<input type="checkbox"/>	<input type="checkbox"/>	Anonymous data obtained from the SCSU Office of Strategy, Planning and Effectiveness.
<input type="checkbox"/>		Other, please explain: <a href="#">Click or tap here to enter text.</a>
<input checked="" type="checkbox"/> Other, please explain how data were obtained: The data were obtained via the SBI survey that the university runs each semester. The survey is first administered in the fall to all incoming freshmen, with the Qualtrics survey link sent via email. Each cohort of students is sent the survey again in the spring of the freshman year, the fall of the sophomore year, and the fall of the senior year.		
IF no dataset is involved AND only publicly available works will be used for a book or literature review, an IRB protocol or review is not required STOP HERE.		

8. What/Who is the source from which the dataset was obtained?
The SCSU Belonging Initiative

9. What does the dataset consist of (include as much detail as possible; e.g. list of specific questions asked, etc.)?
The dataset will consist of the social belonging index (SBI) group of each student. Student identifiers will not be included.

<b>10. What was the intent when the original data were collected?</b>
The intent of the original data collection was to examine the extent to which students' sense of belonging was correlated to retention compared to predictive models so that an improved model could be devised in the service of informing how the university supports students.
<b>11. When were the original data collected? (Timeframe)</b>
The original data were potentially recorded between the Fall semester of 2017 and the Fall semester of 2020
<b>12. Was IRB Approval obtained for the original data collection?</b>
<input checked="" type="checkbox"/> If YES, provide name of institution which approved the research, PI name, and IRB approval date. Institution: SCSU. PI: Melissa Hanzsek-Brill. Initial approval date: 06/06/2017 - has been renewed every year since then. <input type="checkbox"/> No, data were collected six months or more prior to this proposed use. <input type="checkbox"/> No, data were collected less than six months from this protocol date; explain why IRB approval was not obtained. Click or tap here to enter text.
<b>13. Is dataset publicly available?</b>
<input type="checkbox"/> Yes. Dataset is used for published documents such as thesis or dissertations. <input checked="" type="checkbox"/> If dataset is not publicly available, explain the process taken to gain permission to use the dataset. SCSU Wellness Coaching and the SCSU Belonging Initiative work closely to identify students who have low SBI scores for Wellness Coaching outreach, so it was natural for us to work on a project like this. We reached out to the Belonging Initiative and had a Zoom meeting with Melissa Hanzsek-Brill where we proposed using her data to track SBI scores from our client lists for changes after clients participated in Wellness Coaching, and she agreed to share her data with us. Attach a letter of cooperation from the entity/person to state their involvement with the initial data collection, how data will be de-identified prior to its release, why data currently exists, where was it collected etc.
<b>14. Number of participants:</b>
The SCSU Belonging Initiative surveys around 2,500 new students every year, however, the total number of potential participants for this project is the 84 students who participated in Wellness Coaching in the 2019-2020 academic year.
<b>15. Age range of participants (if age 17 or under, please explain why minors' data are being used):</b>
18+
<b>16. Describe the participants' understanding of the use of data as originally collected:</b>
The participants' understanding was that the survey is confidential and that nobody other than the researchers will be able to identify a specific individual's results, and that the data will be used to better serve students. The original informed consent form is attached.

## PRARAMETERS OF EXISTING DATA

<b>17. Does the dataset you will have access to contain direct or indirect personal identifiers?</b>
<input checked="" type="checkbox"/> <b>Direct</b> (i.e. name, local address, permanent address, email address, phone number, social security number, photograph(s), biometric information, etc.) <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, please describe the personal identifiers: The original dataset that the Belonging Initiative research team has access to has student names, tech IDs, and emails.
<input checked="" type="checkbox"/> <b>Indirect</b> (i.e. race, gender, age, language, ethnicity, zip code, IP address, major, associated organization(s), etc.) <input type="checkbox"/> No <input type="checkbox"/> If Yes, please describe the personal identifiers: Click or tap here to enter text.

<p><b>18. Will the identifiers be removed prior to you obtaining the dataset?</b></p> <p><b>Direct</b> (i.e. name, local address, permanent address, email address, phone number, social security number, photograph(s), biometric information, etc.)</p> <p><input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> If Yes, please list which identifiers the set will present: I have asked that all identifiers be removed, since they are not necessary for my purposes.</p> <p><b>Indirect</b> (i.e. race, gender, age, language, ethnicity, zip code, IP address, major, associated organization(s), etc.)</p> <p><input type="checkbox"/> No</p> <p><input checked="" type="checkbox"/> If Yes, please list which identifiers the set will present: N/A, but I have asked that any identifiers be removed, since they are not necessary for my purposes.</p>
<p><b>19. Will you remove identifiers from the dataset or otherwise aggregate the data in such a manner whereby participants cannot be identified either directly or indirectly?</b></p> <p><input checked="" type="checkbox"/> If Yes, please explain how: I have asked that all identifiers be removed before the data is sent to me, since they are not necessary for my purposes. All I need to know is what the participants' social belonging score was in each survey taken and the semester that each survey was taken in.</p> <p><input type="checkbox"/> If No, provide justification why identifiers are necessary: Click or tap here to enter text.</p>
<p><b>20. Are you taking direct quotes from previous participants?</b></p> <p><input checked="" type="checkbox"/> No</p> <p><input type="checkbox"/> If Yes, explain when and how approval was received or why consent can no longer be obtained: Click or tap here to enter text.</p>
<p><b>21. Describe those who will have access to the data other than the principal investigator or other investigators:</b></p> <p>Dr. Sara DeVos (thesis committee) Dr. Consoler Teboh (thesis committee) Erica Karger-Gatzow (thesis committee and Wellness Coaching supervisor) Jen (Waletzko) Johnson (Wellness Coaching supervisor)</p>
<p><b>22. How will you securely store the dataset and how long do you intend to keep it? (150 words or less)</b></p> <p>The data will be stored on the password-protected OneDrive tied to my University employee account and accessed on password-protected computers. Data will be kept for no longer than 1 year after completion of the project.</p>
<p><b>23. Do you anticipate any future use of the data?</b></p> <p><input checked="" type="checkbox"/> No</p> <p><input type="checkbox"/> If Yes, please explain: Click or tap here to enter text.</p>

### PROTOCOL SUBMISSION CHECKLIST

<p><b>To submit a complete packet to the IRB, INCLUDE all of the following:</b></p> <p><input checked="" type="checkbox"/> Complete, signed IRB protocol form.</p> <p><input checked="" type="checkbox"/> If applicable, support letter from individual/organization providing existing dataset.</p> <p>Submit completed IRB protocol with all attachments on <a href="#">Huskies Connect</a>.</p>
--



## Appendix B: IRB Approval Letter



### Institutional Review Board (IRB)

720 4th Avenue South AS 210, St. Cloud, MN 56301-4498

**Name:** Nigel Westbrook  
**Email:** nigel.westbrook@go.stcloudstate.edu

### IRB PROTOCOL DETERMINATION: Exempt Review

**Project Title:** The Effect of Wellness Coaching on Sense of Belonging Index Scores

**Advisor:** Sara DeVos

The Institutional Review Board has reviewed your protocol to conduct research involving human subjects. Your project has been: **APPROVED**

Please note the following important information concerning IRB projects:

- The principal investigator assumes the responsibilities for the protection of participants in this project. Any adverse events must be reported to the IRB as soon as possible (ex. research related injuries, harmful outcomes, significant withdrawal of subject population, etc.).

- For expedited or full board review, the principal investigator must submit a Continuing Review/Final Report form in advance of the expiration date indicated on this letter to report conclusion of the research or request an extension.

- Exempt review only requires the submission of a Continuing Review/Final Report form in advance of the expiration date indicated in this letter if an extension of time is needed.

- Approved consent forms display the official IRB stamp which documents approval and expiration dates. If a renewal is requested and approved, new consent forms will be officially stamped and reflect the new approval and expiration dates.

- The principal investigator must seek approval for any changes to the study (ex. research design, consent process, survey/interview instruments, funding source, etc.). The IRB reserves the right to review the research at any time.

If we can be of further assistance, feel free to contact the IRB at 320-308-4932 or email ResearchNow@stcloudstate.edu and please reference the SCSU IRB number when corresponding.

**IRB Chair:**

Dr. Mili Mathew  
 Chair and Graduate Director  
 Assistant Professor  
 Communication Sciences and Disorders

**IRB Institutional Official:**

Dr. Claudia Tomany  
 Associate Provost for Research  
 Dean of Graduate Studies

#### OFFICE USE ONLY

<b>SCSU IRB#</b> 2015 - 2622	<b>Type:</b> Exempt Review	<b>Today's Date:</b> 2/19/2021
<b>1st Year Approval Date:</b> 2/19/2021	<b>2nd Year Approval Date:</b>	<b>3rd Year Approval Date:</b>
<b>1st Year Expiration Date:</b>	<b>2nd Year Expiration Date:</b>	<b>3rd Year Expiration Date:</b>