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# A Qualitative Investigation of the Peer Mentor Experience in a Physical Activity Intervention for Mental Health

Taylor R. Leenstra

*Western Washington University*, [leenstt@wwu.edu](mailto:leenstt@wwu.edu)

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A QUALITATIVE INVESTIGATION OF THE PEER MENTOR EXPERIENCE IN A  
PHYSICAL ACTIVITY INTERVENTION FOR MENTAL HEALTH

By  
Taylor Leenstra

Accepted in Partial Completion  
of the Requirements for the Degree  
Master of Science

Kathleen L. Kitto, Dean of the Graduate School

ADVISORY COMMITTEE

Chair, Dr. Linda Keeler

Dr. Jessyca Arthur-Cameselle

Dr. Keith Russell

## **Master's Thesis**

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Taylor Leenstra

May 10<sup>th</sup>, 2017

A Qualitative Investigation of the Peer Mentor Experience in a Physical Activity  
Intervention for Mental Health

A Thesis  
Presented to  
The Faculty of  
Western Washington University

In Partial Fulfillment  
Of the Requirements for the Degree  
Master of Science

By  
Taylor Leenstra  
May, 2017

## ABSTRACT

Interventions that utilize peer mentors to aid in altering the physical activity behaviors and attitudes of individuals have grown in popularity (Mellanby, Rees, & Tripp, 2000). While the mentees' experiences in such programs have been studied extensively, there is little research that explores how taking on the role of a peer mentor influences the mentor themselves. The Western Wellcat program is a peer-led physical activity intervention designed to improve the mental and physical well-being of students with clinical depression and anxiety (Keeler, 2015). In the Western Wellcat program and programs like it, peer mentors serve as supportive, reliable, and knowledgeable exercise partners for their peers and have been found to reduce depression levels of student participants (Keeler, 2015; Rieck, 2012). The purpose of this study was to qualitatively investigate the experiences of peer mentors in the Western Wellcat program. Participants included eight former Western Wellcat peer mentors, who participated in the program in 2015 (n = 4) and 2016 (n = 4). Using semi-structured interviews with open-ended questions, the researcher explored the peer mentors' motivations to sign up, their expectations for the program, the ways in which the program influenced them, and solicited suggestions they had for program improvement. Inductive coding revealed multiple themes in each of the aforementioned areas of exploration. The 13 themes that emerged from the peer mentors' experiences were all related to their personal growth, interpersonal awareness, and professional development. Regarding the peer mentors' overall experiences, deductive analysis was also performed based on the three basic human psychological needs of the self-determination theory: autonomy, competence, and relatedness (Ryan & Deci, 2000). Based on the emerged themes, the self-determination theory adequately explained the peer mentors' experiences in the Western Wellcat program.

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## **Chapter I**

### **The Problem and Its Scope**

#### **Introduction**

Interventions that utilize peer mentors to aid in altering the health behaviors and attitudes of individuals have grown in popularity in the past two decades (Mellanby, Rees, & Tripp, 2000; Pfeiffer, Heisler, Piette, Rogers, & Valenstein, 2012). Specifically, peer-guided interventions geared towards individuals struggling with depression have been found to be more effective than usual care in decreasing symptoms of depression (Pfeiffer et al., 2012). The utility of peer-led interventions for individuals diagnosed with depression is what provoked the creation of a physical activity intervention for college students with mental health concerns on multiple campuses (Keeler, 2015; Reick, 2012).

One such exercise intervention for mental health, namely the Western Wellcat program, is a peer-led physical activity program designed to improve the mental well-being of students with clinical depression and anxiety (Keeler, 2015). Peer mentors from a mid-sized, northwest university's kinesiology major and minor programs receive internship credit by serving as exercise buddies for clients referred from the university's Student Health Center and Counseling Center. At the beginning of the internship program, peer mentors are trained in relevant areas of exercise psychology, exercise physiology, motivational interviewing, confidentiality, and crisis management from the program director, program coordinator, and staff of the university's Prevention and Wellness Center. The peer mentors' primary role is to provide companionship, as well as informational and emotional support (Lox, Martin Ginis, & Petruzzello, 2010) by being a reliable partner for physical activity for referred students. The peer mentors are not personal trainers, nor are they counselors; the Western Wellcat peer mentors are exercise buddies for their

clients and provide them with emotional support should the client choose to disclose any sensitive information. The peer mentors are assigned between one and three clients based on corresponding schedules and activity preferences, and meet with their clients twice a week for one hour of physical activity over the course of the program. For the past three years, the Western Wellcat program has been conducted during the Winter academic quarter, and both the client and the peer mentor have the option of continuing their participation through the subsequent Spring academic quarter. The original version of the Western Wellcat program, Wellcat Fit, was developed at a mid-size university in California (Rieck, 2012) and has since been expanded to one other university in California. Given the growing nature of these programs on college campuses, it is important to study the outcomes associated with the program.

The Wellcat programs are designed with the aim to fulfill the referred students' three basic psychological needs based on the self-determination theory: autonomy, competence, and relatedness (Ryan & Deci, 2000). When satisfied (i.e., fulfilled), these three psychological needs are reasoned to increase self-motivation and emotional well-being (Ryan & Deci, 2000).

*Autonomy* refers to an individual's need to make decisions that are independent and congruent with their own values (Ryan & Deci, 2000). Within the Wellcat programs, the clients' need for autonomy may be fulfilled through their voluntary participation and freedom to select the physical activities they would like to perform with their peer mentor. *Competence* is defined as an individual's perceived ability to complete a task successfully (Ryan & Deci, 2000). The clients' need for competence may be fulfilled in the Wellcat programs as the behavioral goal of two hours per week is realistic and the student receives modeling, positive feedback, and support from their peer mentor; thus, potentially improving the client's confidence for physical activity. The clients' *relatedness* need, or their need for a sense of connection or belongingness to others

(Ryan & Deci, 2000), may be fulfilled through the companionship and support provided by the peer mentor in the Wellcat programs.

The effects and outcomes of *mentees*' experiences in peer-led programs have been extensively studied (e.g., Sallis et al., 1999; Posavac, Kattapong, & Dew, 1999; Webel, Okonsky, Trompeta, & Holzemer, 2010); however, little attention has been paid to the peer *mentors*. It is known that peer mentors may serve a powerful role in changing mentees' attitudes and behaviors (e.g., Sallis et al., 1999; Posavac et al., 1999; Webel et al., 2010), but it is unclear how taking on the role of a peer mentor affects the mentor themselves. Researchers who have investigated the experiences of peer mentors in peer-led programs have found improvements in the peer mentors' ability to form meaningful interpersonal relationships (e.g., Couchman, 2009), overall psychological development (e.g., Harris & Larsen, 2007), and physical development (e.g., Temple & Stanish, 2011). While some outcomes of serving as a peer mentor have been documented, researchers have yet to explore the outcomes and experience of taking on the role of a peer mentor in a peer-guided physical activity program for mental health.

### **Purpose of the Study**

The purpose of this study was to qualitatively evaluate the experiences of peer mentors who were involved in a peer-led physical activity intervention aimed to decrease symptoms of depression and anxiety among college students.

### **Research Questions**

The following research questions guided the interviews that were used to explore the experiences of the peer mentors in the present study: (1) What motivated the peer mentor to sign up for the Western Wellcat program as an exercise buddy? (2) What expectations did the peer mentor have for the Western Wellcat program? (3) What did the peer mentor get out of their

experience in the Western Wellcat program? (4) How did participating in the Western Wellcat program affect the peer mentor outside of the program? and (5) How can the Western Wellcat program be improved?

### **Significance of the Study**

To date, little to no research has been conducted that explores the experiences of the peer mentors in peer-led physical activity programs, especially those geared towards decreasing symptoms of depression and anxiety of college students. By participating in the Western Wellcat program, peer mentors may be provided with the opportunity to learn about the effects of exercise on mental health, as well as the opportunity to develop skills related to cooperation, leadership, and professionalism. The current study will potentially provide readers with a better understanding of the peer mentors' experiences in the Western Wellcat program, which may identify areas of the program that could be improved and/or provide support for the current design of the program. Given that positive effects of participating as a client in the Western Wellcat program have been found (Keeler, 2015), discovering the outcomes associated with taking on the role of a peer mentor in Western Wellcat program will expand the researchers' and readers' understanding of the overall impact of participating in the program.

### **Limitations of the Study**

1. All participants were college students from one kinesiology program at one mid-sized, northwest university, who served as peer mentors in the Western Wellcat program.
2. The time period that participants served as peer mentors varied; some peer mentors worked with their client(s) for three months, while others worked with their client for six months. The differences in participation times of the peer mentors limits the comparison between participant responses.

3. The length of time that had passed since participants served as peer mentors in the Western Wellcat program was also variable, therefore there may have been differences in the mentors' recall ability.

4. The primary researcher was the program coordinator for the Western Wellcat program during the 2016 academic year, therefore, social desirability bias (Grimm, 2010) may have been reflected in four participant interview responses. All participants were reminded before their interview that their participation and responses were confidential, and to be as honest as possible as the researcher was not looking for any particular responses.

### **Definitions of Terms**

Client: A student referred to the Western Wellcat program who has been diagnosed with clinical depression and/or anxiety. The term client has been adopted for this study for ease of use, although, the Western Wellcat "clients" do not have clinical, therapeutic relationships with their peer mentor, the program coordinator, or the program director.

Companionship support: "The availability of people with whom one can exercise, such as a friend, family member, or exercise group" (Lox et al., 2010, p. 103). In the Western Wellcat program, the peer mentor is the client's source of companionship support.

Emotional support: "The expression of encouragement, caring, empathy, and concern toward a person" (Lox et al., 2010, p. 103). One of the peer mentors' roles in the Western Wellcat program is to provide emotional support for their clients.

Informational support: "Giving directions, advice, or suggestions about how to exercise and providing feedback regarding the exerciser's progress" (Lox et al., 2010, p. 103). The peer mentors in the Western Wellcat program provide informational support by giving their clients



suggestions about form and the proper execution of activities or exercises when the clients' safety is at risk.

Peer mentor: Kinesiology student who receives internship credit for their participation in the Western Wellcat program as an exercise buddy or peer assistant. Peer mentors are trained in confidentiality, the effects of exercise on mental health, and how to provide informational, emotional, and companionship support to their clients. The terms peer mentor, exercise buddy, and peer assistant will be used interchangeably throughout this study.

Peer mentorship: The process of shared learning and development between two people of similar ages and/or experiences (Colvin, 2007), which fosters “mutual benefit, interaction, and support for both individuals” (Huang & Lynch, 1995, p. 212).

Social support: “The perceived comfort, caring, assistance, and information that a person receives from others” (Lox et al., 2010, p. 102).

Western Wellcat: A peer-led physical activity program aimed to improve the mental well-being of students diagnosed with clinical depression and/or anxiety.

## **Chapter II**

### **Review of the Literature**

#### **Introduction**

In order to fully understand the experience of working as a peer mentor in a peer-led physical activity intervention, it is essential to have an understanding of the outcomes associated with taking on the role of a peer mentor across a variety of mentoring interventions. However, since little research has been conducted that explores the outcomes of peer mentorship, this review will also address the overall utility of peer-led interventions, including the use of peer-led physical activity programs for mental health. Following a review of the research on the utility of peer-led programs, the common motivations identified by peer mentors for their engagement in peer-guided inventions will be addressed. Additionally, several benefits of taking on the role as a peer mentor will be reviewed, including the learning outcomes and personal development associated with participation. Finally, the negative outcomes associated with peer mentorship will be covered.

#### **Peer Mentorship Defined**

With the growing popularity of the utilization of mentors across a variety of fields comes an inevitable disagreement of what, exactly, defines mentorship. Mentoring is common in career settings, academia, and programs concerned with psycho-social development, and because of this, definitions may vary depending on the context (Bierema & Merriam, 2002). For example, a mentor may be someone who oversees the development of a co-worker through teaching, providing support, and promoting that individual (Bierema & Merriam, 2002). In this case, mentorship may involve a senior employee overseeing a junior employee, in terms of age or experience within the company, with the goal being to help the junior employee excel in a

particular area (Bierema & Merriam, 2002). Traditional mentorship differs from peer mentorship in that the latter involves individuals of similar ages and/or experiences (Colvin, 2007).

Peer mentorship programs may be structured in a way that the peer mentor acts as a leader. For example, in a peer-led intervention conducted by Wyman et al. (2010), peer mentors at a high school were trained in suicide prevention and acted as leaders to their distressed peers by demonstrating and encouraging help-seeking behaviors. In this intervention, the peer mentors acted as leaders because they were teaching their peers how to change a behavior (Wyman et al., 2010). Another form of peer mentorship may look similar to a counseling relationship, in which the peer mentor shares a common experience with the mentee and helps counsel them through that experience. The peer mentors who participated in a study conducted by Messias, Moneyham, Vyavaharkar, Murdaugh, and Phillips (2009) acted as counselors for their peers who had been diagnosed with HIV/AIDS. In this study, the peer mentors provided social support to their mentees by speaking with them about common concerns of women living with HIV/AIDS (Messias et al., 2009). The role of a peer mentor may differ depending on the intervention setting because peer mentors involved in counseling roles may only provide social support and advice, while the main goal of peer mentors in leadership roles may be to provide instruction.

Peer mentors involved in peer-led programs geared toward promoting physical activity, such as the Wellcat programs, hold different roles than the peer mentors previously reviewed (Keeler, 2015; Reick, 2012). Instead of teaching their peer how to excel at a particular task or counseling their peers, the role of Wellcat peer mentors is simply to encourage physical activity by providing companionship and emotional support as a dependable exercise partner (Keeler, 2015). The peer mentors in the Wellcat programs only provide instructional or informational support regarding exercises when the client's safety is at risk or when clients request activity

options. In addition, the Wellcat peer mentors perform the physical activity intervention with their peers, which is a unique feature of these particular peer-led interventions.

When considering the variety of peer mentorship roles, overall, peer mentorship involves providing support to individuals of similar age or experience; in essence, partners are of equal status (Colvin, 2007; McLoughlin, Lee, & Brady, 2008). Therefore, in regard to the Western Wellcat program and throughout this review, *peer mentorship* is defined as the process of shared learning and development between two people of similar ages and/or experiences (Colvin, 2007), which fosters “mutual benefit, interaction, and support” for both individuals (Huang & Lynch, 1995, p. 212). Peer-mentored and peer-led programs will be used interchangeably throughout this review.

### **Theoretical Basis for Peer-Led Programs**

The overall utility of employing peer mentors in interventions geared towards changing participants’ attitudes and behaviors may be explained through Bandura’s (1971) social learning theory. The premise of social learning theory is that individuals learn through both direct experiences and the observation of others’ behaviors (Bandura, 1971). Through direct experience, individuals learn as a result of the positive or negative consequences that follow their actions (Bandura, 1971). In other words, as individuals are confronted with situations that they must respond to, the rewarding or punishing feedback that they receive from others helps dictate the way they will respond to that stimulus in the future. In addition to learning through direct experience, according to the social learning theory, individuals also learn by observing others (Bandura, 1971). Learning cannot solely occur through the process of trial-and-error, as this would be immensely time consuming and, in some situations, dangerous; therefore, the majority of human behavior is learned through modeling (Bandura, 1971). Modeling refers to learning by

example; through observing the behaviors and actions of others, an individual adopts the learned responses and implements them in their own responses and actions (Bandura, 1971). In this way, if an individual observes another person receiving a favorable response to their behavior, the observing individual is likely to imitate or adopt that behavior (Balogun & Okurame, 2011; Bandura, 1971).

Mentored interventions may be effective in facilitating behavior change because they are often based on modeling (Balogun & Okurame, 2011). In mentored interventions, the mentees may learn to change their behavior by observing the favorable responses associated with the behaviors of their mentors and then adopting those behaviors. In support of this notion, many researchers credit the benefits of the mentees involved in mentored programs with the idea that behavior is learned through the mentee's interaction with the individual who serves as a model (Baldwin, 1992; Balogun & Okurame, 2011). Balogun and Okurame (2011) also suggested that the feeling of companionship created through a close mentoring relationship enhances the likelihood of the mentors' and mentees' behaviors influencing one another. It may then be assumed that in peer-mentored interventions, where the role model is the mentee's peer, that the idea of learning through modeling would play an even greater role in explaining the mentee's change in behavior because the mentor and mentee are similar in age and/or experience (Colvin, 2007). In peer-mentored interventions, individuals may feel more comfortable engaging with someone of similar age (Mellanby et al., 2000) and this similarity may encourage the mentee to adopt the behaviors of their peer.

### **Peer-Led Interventions for Mental Health**

**Exercise and depression.** According to the *Diagnostic and Statistical Manual of Mental Disorders*, major depressive disorder is characterized by a change from prior functioning to

depressed mood and/or a loss of interest in daily activities for a period of two weeks or more (DSM-5; American Psychiatric Association [APA], 2013). To be diagnosed with major depressive disorder, depressed mood and/or loss of interest must be accompanied by at least five of the following symptoms: significant weight loss or weight gain, insomnia or hypersomnia, psychomotor agitation or retardation, fatigue, excessive feelings of worthlessness or guilt, diminished concentration, or suicidality (APA, 2013). Throughout this review, the term depression will be used when referring to major depressive disorder unless otherwise specified.

The efficacy of exercise as a method of combatting depressive symptoms has been widely investigated (e.g., Byrne & Byrne, 1993; Josefsson, Lindwall, & Archer, 2014; Keeler, 2015; Rieck, 2012; Ströhle, 2009). For example, researchers who have conducted several reviews of the literature have reported the antidepressant qualities of engaging in exercise for those with mild to moderate depression. In a meta-analysis of thirteen studies, Josefsson and colleagues (2014) assessed the effectiveness of exercise interventions on depressive disorders and found a significant, large effect in favor of exercise interventions when compared to no treatment, placebo control groups, and usual care of clinically depressed individuals. Similarly, in two other reviews, researchers assessed the effects of physical activity and exercise on depression and anxiety disorders and reported support for the antidepressant, anti-anxiety, and mood enhancing effects of exercise programs (Byrne & Byrne, 1993; Ströhle, 2009). A review of all the literature that reports the antidepressant qualities of exercise is beyond the scope of this review, however, the above evidence does provide rationale for the implementation of exercise interventions that aim to improve symptoms of depression.

**Exercise and anxiety.** According to the DSM-5, generalized anxiety disorder is characterized by excessive worry, and a difficulty controlling this worry, which causes clinically

significant distress and impairment in various events or activities (APA, 2013). To be diagnosed with generalized anxiety disorder, excessive worry must also be accompanied by three or more of the following symptoms: restlessness, fatigue, difficulty concentrating, irritability, tension, or disturbances in sleep (APA, 2013).

Research on the relationship between physical activity and anxiety is less extensive than that of physical activity and depression, and results on the anxiolytic effects of exercise have been inconsistent (e.g., Bartley, Hay, & Bloch, 2013; De Moor, Beem, Stubbe, Boomsma, & De Geus, 2006; Rebar et al., 2015; Wipfli, Rethorst, & Landers, 2008). In a population-based study of 19,288 participants with a mean age of 33 years, researchers examined the association between regular exercise, anxiety, depression, and personality and found that exercisers were significantly less anxious and depressed than non-exercisers (De Moor et al., 2006). It cannot be assumed that the cause of the participants' lower anxiety and depression was from exercise due to the cross-sectional nature of this study; nevertheless, the results do provide preliminary evidence of the relationship between anxiety and physical activity.

While some researchers have demonstrated the anxiolytic effects of exercise, inconsistencies in the relationship between exercise and anxiety have been found through the results of several meta-analyses. Researchers who examined the anxiolytic quality of exercise through two meta-analyses found that physical activity reduced anxiety in non-clinical populations with a small effect (Rebar et al., 2015), and with a small-to-moderate effect in populations diagnosed with clinical anxiety (Wipfli et al., 2008). However, in another meta-analysis, Bartley et al. (2013) reviewed studies on the effectiveness of aerobic exercise as a treatment for individuals with clinically diagnosed anxiety disorders and found that aerobic exercise had no significant effect on the reduction of anxiety. Exercise was more effective than

control conditions in the treatment of anxiety (i.e., placebo and waitlist), however cognitive behavioral therapy and pharmacotherapy were more effective than exercise (Bartley et al., 2013). Clearly, due to the inconsistent results apparent in the aforementioned research, the implementation of more experimental designs investigating the anxiolytic effects of exercise are warranted.

**Peer-led interventions for depression and anxiety.** When considering the utility of peer-led programs and the effectiveness of exercise interventions to combat depression and anxiety, it seems intuitive that the combination of these two features may create a highly successful intervention. The utilization of peer mentors in interventions that aim to improve symptoms of depression is supported through a meta-analysis of seven randomized control trials (Pfeiffer et al., 2012). The inclusion criteria for each study included in Pfeiffer et al.'s (2012) meta-analysis were scores on four commonly used objective measures of depression: the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961), the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977), the Hamilton Rating Scale for Depression (HRSD; Hamilton, 1960), and the Edinburgh Postnatal Depression Scale (EPDS; Cox, Holden, & Sagovsky, 1987). The control conditions for each study were either usual care, cognitive behavioral therapy, or a combination of the two compared to the implementation of a peer support group (Pfeiffer et al., 2012). Pfeiffer et al. (2012) found that peer support interventions were more effective than usual care in decreasing symptoms of depression. These results provide powerful support for the implementation of a peer-led physical activity program designed to improve the mental and physical well-being of individuals struggling with depression.



The effectiveness of programs that utilize peer mentors to improve the symptoms associated with depression and anxiety was further demonstrated through a randomized controlled trial (Ellis, Campbell, Sethi, & O’Dea, 2011). Ellis et al. (2011) compared the effects of an online cognitive behavioral therapy program and an online peer-led support group on the symptoms of depression and anxiety of 39 male and female undergraduate university students. The researchers found that the young adults of both groups significantly decreased their symptoms of anxiety compared to a control group (Ellis et al., 2011). For the peer-led support group, results were also in the positive direction for improvements in depression; however, these results were not statistically significant. This study provides a rationale for the use of peer support interventions for anxiety. However, the experiences of the peer mentors themselves were not studied in any of the reviewed peer-led interventions for mental health. Research on the influence of participating as a peer mentor in a peer-led program geared toward improving symptoms of depression and anxiety is warranted.

### **Peer-Led Physical Activity Interventions**

While it is advantageous to utilize peer mentors in interventions that attempt to improve mental health, it may also be beneficial to utilize peer mentors in interventions that attempt to improve individuals’ physical activity levels, given that exercise is a treatment for depression (Josefsson et al., 2014). In support, research has shown that peer-led interventions may be more effective than non-peer led interventions in improving participants’ physical activity levels (e.g., Ginis, Nigg, & Smith, 2013). Ginis et al. (2013) identified the usefulness of peer-led interventions by implementing a systematic review of 10 studies to determine the effects of peer-mentored physical activity interventions on participant activity levels. The researchers found that interventions utilizing a peer mentor were as effective or more effective at increasing participant

physical activity levels than professionally delivered programs or control conditions (Ginis et al., 2013).

To further demonstrate the effectiveness of peer-led physical activity programs, Boyle, Mattern, Lassiter, and Ritzler (2011) assessed the differences in the physical activity levels of 178 previously inactive male and female college-aged participants following a structured physical activity behavior change program utilizing a peer educator. The peer educators provided education and support to the program participants by helping them develop realistic physical activity goals and a tailored physical activity program, and by providing them with encouragement and verbal persuasion (Boyle et al., 2011). The physical activity of participants in the intervention group (peer supported behavior change) was compared to participants in a control group, who attempted to change their physical activity behavior without any help from a peer educator (Boyle et al., 2011). Individuals in the intervention group significantly increased their total physical activity levels over the course of the program, whereas participants in the control group significantly decreased their physical activity levels (Boyle et al., 2011). Similarly, Keeler, Clifford, August, Kowalski, and Morris (2013) examined the effects of an 8 to 10-week peer-led exercise and nutrition intervention, in which senior undergraduate and graduate students served as nutrition or exercise adherence consultants for their female peers. Keeler et al. (2013) found that 65% of the 17 participants in the intervention group improved their level of physical activity by the end of the program, compared to only 20% of the 16 participants in the control group. These findings provide a rationale for the implementation of a physical activity intervention that utilizes peer-mentors for support, particularly in college-aged individuals. However, while peer-mentored physical activity interventions have been successful in changing

the mentees' behavior, no research has been conducted that explores the outcomes of the peer mentors who participate in such programs.

Peer led physical activity interventions appear to be successful in changing participants' exercise behaviors, however, the particular elements that make the interventions successful have not yet been identified. Corder, Schiff, Kesten, and van Sluijs (2015) facilitated focus groups with 26 older adolescents and four high school teachers in an attempt to gain insight into how to develop a physical activity intervention for adolescents that would maximize participant engagement. The researchers asked the student participants, "how should we promote physical activity to the whole of year 9 (i.e., 9<sup>th</sup> graders)" and the teacher participants, "how do we encourage teachers to be involved and invested in a physical activity promotion intervention for year 9" (Corder et al., 2015, p. 3). After analyzing the qualitative data obtained from the focus groups, the researchers found six themes that summarized the suggestions for what seemed to be necessary in order to encourage individuals to participate in physical activity: choice, novelty, mentorship, competition, rewards, and flexibility (Corder et al., 2015). Therefore, a successful feature of interventions that attempt to improve the physical activity behavior of participants may be the utilization of a peer mentor.

### **Peer-Led Physical Activity Interventions for Mental Health**

The Wellcat programs are the only known programs that combine a peer-led structure with a physical activity intervention that attempts to decrease symptoms of depression and anxiety. The original version of the Western Wellcat program, Wellcat Fit, was assessed by Rieck (2012) to determine if the program improved students' symptoms of depression, self-efficacy for physical activity, and levels of physical activity. The intervention for the Wellcat Fit program is identical to that of the Western Wellcat program. Peer assistants, who were

undergraduate and graduate kinesiology students from a mid-sized university in California, were paired with nine students referred to the program from the university's Student Health Center or Counseling Center to help treat their depression (Rieck, 2012). The peer assistants then acted as exercise buddies for their peers, and participated in physical activity of the clients' choice for two hours per week for eight weeks (Rieck, 2012). Following the Wellcat Fit pilot program, Rieck (2012) found positive trends in participants' depressive symptoms using the Zung Self-Rating Depression Scale (SDS; Zung, 1965), self-efficacy based on the Self-Efficacy for Exercise Scale (SEES; Marcus, Selby, Niaura, & Rossi, 1992), and physical activity levels based on the a modified 7-Day Recall of Physical Activity (PAR; Sallis et al., 1985). However, the only significant improvements were found in participants' self-efficacy (Rieck, 2012). Keeler (2015), who conducted the pilot program of Western Wellcat, found that clients' depressive symptoms significantly decreased following the peer-led exercise intervention as assessed by the Depression, Anxiety, and Stress Scale (DASS; Lovibond & Lovibond, 1995) and the Zung Self-Rating Depression Scale (Zung, 1965). Further, Keeler (2015) reported a moderate effect size for the decrease in participants' anxiety and a large effect size for the decrease in participants' stress following the intervention, but these results did not reach statistical significance, probably due to the power of the study and a small sample size (Keeler, 2015). Both Wellcat programs are still being offered at the time of the writing of this review.

Preliminary research regarding both the Wellcat Fit program and Western Wellcat program provide support for the use of peer-led physical activity interventions to improve mental health (Keeler, 2015; Rieck, 2012). While researchers have identified the effects of these programs on the clients or mentees, there is no research in the literature that addresses the outcomes of participating in these specific programs as a peer mentor. As previously mentioned,

peer mentorship is characterized by shared learning and development (Colvin, 2007), and mutual benefit and support (Huang & Lynch, 1995) between the mentor and the mentee. However, the ways in which the peer mentors have learned and developed as a result of their experiences in programs, such as Western Wellcat, are unknown. Therefore, in order to develop a comprehensive understanding of the effects of working as a mentor in a peer-led physical activity intervention for mental health, it may be beneficial to examine the outcomes associated with taking on the role of a peer mentor across a variety of mentoring interventions. The remainder of this review will thus address the research that evaluates the experiences of peer mentors in peer-led interventions.

### **Empirical Evidence for Peer Mentoring**

**Peer mentor motivation.** Prior research has identified several reasons an individual may choose to hold a position as a peer mentor, varying from altruistic to more egotistic motives. Altruism is a motivational concept related to prosocial behavior, which is any behavior that is performed with the intent of benefiting others (MacIntyre, 1967). Altruism refers to the motivation to improve another's well-being and it is the antithesis of egoism, which is the motivation to improve one's *own* well-being (MacIntyre, 1967). Altruistic motivation was a dominant theme for peer mentors in the qualitative research conducted by Messias et al. (2009), who interviewed six women who provided counseling to female peers suffering from HIV/AIDS to assess the impact of the peer counselors' two-year experience in the program. Through coding and analyzing the peer mentors' responses to open-ended questions, such as "Tell me about your job as a peer counselor," the researchers found that the mentors' participation was driven primarily by a desire to help others (Messias et al., 2009, p. 5). The mentors, who were also diagnosed with HIV/AIDS, expressed that a key motivator to participate was the opportunity to

share their personal experiences and knowledge with others who were in a similar situation, since they were not personally provided adequate support and resources themselves. These peer mentors, as well as others from a similar qualitative study evaluating the benefits of peer support counseling for those living with HIV/AIDS (Harris & Larsen, 2007), believed that being a mentor would provide them with a sense of empowerment, and helping others would be a rewarding and inspiring experience (Harris & Larsen, 2007; Messias et al., 2009). Therefore, these peer mentors were motivated by a combination of selfless and self-centered incentives, which is a dominant finding throughout the literature (e.g., Harris & Larsen, 2007; Klein & Sondag, 2015; Messias et al., 2009; Temple & Stanish, 2011).

A combination of altruistic and egotistic motivations regarding peer mentor's program participation was also apparent in two other studies with variant intervention topics. In one peer-led intervention, Temple and Stanish (2011) paired high school students with intellectual disabilities together with typically developing students. The peer mentors and students with intellectual disabilities engaged in planned physical activity together two days per week for one hour, for a total of 15 weeks. In this quantitative study, Temple and Stanish (2011) found that 86% of the 14 peer mentors identified the desire to support someone with a disability as a key motivator for participation. However, other key motivators for these youth mentors were more "egotistic", including the motivations to gain experience, get fit, make new friends, and fulfill class credit (Temple & Stanish, 2011). In another study, Klein and Sondag (2015) explored 19 undergraduate and graduate student volunteers' motivations for becoming a peer health educator in a university setting through a focus group guided by semi-structured, open-ended questions. The central themes that emerged regarding peer health educators' motivations for program participation included wanting job training, personally gaining knowledge, and joining for social

reasons, such as making new friends (Klein & Sondag, 2015). In the same study, several of the university students specified that a reason for their involvement as a peer educator was to make sense of their own negative family experiences, such as growing up in an environment where alcoholism, mood disorders, or deaths were prevalent (Klein & Sondag, 2015). Therefore, prior research has indicated that the most prevalent reasons individuals pursued the role of a peer mentor included a combination of both altruistic and egotistic motivations. While motivations were clearly defined by the peer mentors involved in these chronic disease, exercise, and academic based interventions, it cannot be assumed that the motivations of the peer mentors involved in a physical education for mental health program will mimic those of the peer mentors involved in the above programs, thus a new study in this area is warranted.

**Peer mentor skill development.** Once an individual decides to take on the role of a peer mentor, holding the position appears to allow for numerous opportunities for the mentors to develop certain skills. The skill development of peer mentors varies depending on the topic of the mentoring program, and may include improvements in professional skills, increased knowledge of the program subject matter, and/or improved physical health and behaviors (e.g., Badura et al., 2000; Couchman, 2009; Harmon, 2006; Harris & Larsen, 2007; Temple & Stanish, 2011; Whittemore et al., 2000). A detailed review of the skills that peer mentors have reportedly developed as a result of their participation in a variety of peer-led programs is presented in the following sections.

Past researchers have identified several skills related to the *professional development* of individuals that have improved as a result of participating in a peer-led program as a peer mentor. Harmon (2006) interviewed seven college-aged peer mentors who provided counseling to incoming freshman students for a duration of one to two years in order to help ease the

freshman transition process. According to the themes that emerged from the semi-structured, one-on-one interviews, the peer mentors reportedly acquired better management skills, such as organization and planning, as well as enhanced interpersonal and career-related leadership skills, and deepened their understanding of their personal strengths and weaknesses (Harmon, 2006). Similarly, these mentors developed an understanding of how to adapt their mentoring style to meet the needs of a diverse range of individuals based on each person's learning style and motivation (Harmon, 2006). The ability to plan, organize, lead, and communicate with others effectively are all skills that may benefit an individual in their professional careers.

The ability to be an effective leader may be a fundamental professional skill that results from taking on the role of a peer mentor. In addition to the advances in career-related leadership reported from the peer mentors in Harmon's (2006) study, leadership was also a theme that emerged in another education-based intervention. Badura et al. (2000) evaluated the outcomes of participating in peer education training on 22 female and eight male undergraduate peer health educators who were trained in outreach programming. The training course included program development in topics such as health, relationships, and substance abuse (Badura et al., 2000). According to a student leadership survey created for the Creighton University Student Activities Office, the peer educators reported significant improvement in certain leadership skills, such as time management, the ability to set effective goals, public speaking, and verbal persuasion (Badura et al., 2000). Through the results of the preceding studies, it appears that taking on the role of a peer mentor, especially in education-based peer-led programs, may enhance the individuals' professional skill development.

*A deeper understanding of certain mentoring content* was also a common theme in the reported development of peer mentors (e.g., Badura et al., 2000; Couchman, 2009; Harris &



Larsen, 2007). In the previous study by Badura et al. (2000), the peer mentors who participated in the outreach training not only improved their leadership skills, but also considerably enhanced their knowledge of health topics after the training (Badura et al., 2000). Specifically, the peer educators' knowledge of health topics, such stress management, substance abuse, and relationships, almost doubled by the end of the semester-long, peer education training course (Badura et al., 2000). In this way, the content learned by peer mentors may result from the specific training implemented through the program, rather than the actual act of peer mentoring. Similarly, Couchman (2009) found that the common benefit of the peer mentors involved in an academic peer mentoring program for first-year university students was *learning*. The participants in this study were 11 undergraduate male and female academic student leaders in a peer mentored program, titled Peer Assisted Learning Strategies (PALS; Couchman, 2009). The peer mentors submitted narratives detailing their best PALS mentoring session, and through line-by-line coding of their responses, the researchers identified *learning* as a major theme presented in the participants' narratives (Couchman, 2009). The peer mentors and students reported developing an understanding of the content together; it appeared that both groups benefited by learning through the process (Couchman, 2009). Based on the results of the two studies above, participating in a peer-led program as a peer mentor in a university setting may increase the individuals' program-relevant knowledge.

*A greater understanding of the resources available to peer mentors involved in certain peer-led programs was another theme that emerged in past research related to peer mentor's learning.* Harris and Larsen (2007) found this theme by evaluating the perceived benefits of a peer counseling program from the perspective of 12 individuals diagnosed with HIV/AIDS. Of the 12 study participants, 11 had received peer counseling services following their diagnosis, and

9 held the role of a peer counselor (Harris & Larsen, 2007). Those who held the role of a peer counselor stated that consulting with their clients and reflecting on their sessions with other mentors enhanced their own knowledge about the resources that were available to them as individuals who have also been diagnosed with the disease (Harris & Larsen, 2007). The peer counselors believed that helping their clients solve problems aided the mentor in working through their own tough situations (Harris & Larsen, 2007). Because the mentor and their peer shared a common disease, the mentors were able to observe the ways their clients navigated through particular situations and apply those strategies and coping mechanisms to their own situations (Harris & Larsen, 2007). For example, some mentees struggled with medication resistance issues, and by watching how the mentee moved through this situation, the counselors (i.e., mentors) then utilized these strategies to help them get through similar situations (Harris & Larsen, 2007). Therefore, there is evidence that holding the role of a peer mentor may result in an increase in the peer mentors' knowledge of content and resources related to specific peer-led programs.

In addition to the professional skill development and enhanced knowledge of peer mentors, *healthy behavior change* has also been reported as a result of participating as a peer mentor. A positive change in peer mentor behavior was found in a qualitative study conducted by Whittemore et al. (2000), who analyzed the experience of 10 peer mentors, with a mean age of 69 years, in a social support program for individuals of similar ages who had recently experienced a myocardial infarction (MI). Through analyzing participants' weekly logs and the transcriptions from open-ended interview questions, researchers determined that the act of offering support concerning cardiac rehabilitation, nutrition, and physical activity following an MI prompted the peer mentors to make important changes within their own lives (Whittemore et

al., 2000). For example, one mentor who encouraged her client to exercise more by adopting a walking regimen took her own advice and bought a treadmill in order to increase her own exercise behavior (Whittemore et al., 2000). Therefore, the awareness of health promoting behaviors and active discussion between mentors and mentees seemed to elicit healthy behavior change for the peer mentors themselves.

In addition to behavior change in older adults, similar effects were found in adolescents. Temple and Stanish (2011), who evaluated the feasibility of a peer-guided physical activity program for youth with intellectual disability, found positive changes in peer mentors' behavior following the program. As a result of the 15-week partnered physical activity intervention, 64% of the 14 high school peer mentors reported feeling more fit and healthier following their participation in the program, signifying changes in physical health in the positive direction (Temple & Stanish, 2011). Further, Badura et al. (2000), who evaluated the effects of participating in an outreach program development training on peer educators, utilized the Stages of Change Scale (SOCS; McConaughy, Prochaska, & Velicer, 1983) to assess the peer educators' behavior changes over the course of the study. The peer mentors were instructed to complete the SOCS at the beginning and end of the semester-long study regarding one personally identified health behavior he or she was interested in changing (Badura et al., 2000). As a whole, all 20 undergraduate students transitioned from being committed to begin the behavior change at the beginning of the training to actively changing the behavior by the end of the training, according to pre- and post-intervention scores on the SOCS (Badura et al., 2000). This change in behavior suggested an improvement in the peer mentors' physical health over the course of the program. Results of the three studies described lead to the assumption that peer-led interventions

that encourage healthy behavior changes of the mentees may lead to similar behavior changes for the mentors as well.

Participation as a peer mentor in peer-led programs may result in several skill improvements and learning opportunities for the peer mentor, including improvements in professional skills, knowledge of program-relevant topics, and improved physical health. The reported skill development of peer mentors may help satisfy a basic human need, as presented by Ryan and Deci's (2000) self-determination theory. According to Ryan and Deci (2000), there are three basic psychological needs that drive motivation: autonomy, competence, and relatedness. The satisfaction of these three psychological needs is essential for optimal human growth and functioning, as well as overall well-being (Ryan & Deci, 2000). A peer mentor's competence, or their perceived ability to complete a task successfully, may be satisfied as a result of taking on the role of a peer mentor in a peer-led program due to the reported development of certain skills. For example, the peer mentors who had reportedly improved their leadership abilities or management skills following a program are likely to have increased their competency in these areas. As peer mentors acquire certain skills and, therefore, increase their sense of competence in those areas, they may be helping to promote their overall growth as an individual (Ryan & Deci, 2000). A further explanation of the many areas in which peer mentors develop and improve their competency follows, including psychological improvements and the establishment of interpersonal relationships.

**Psychological development of peer mentors.** Along with individual motivations to become a peer mentor and the reported skill and learning development that results from taking on the role as a mentor, researchers have identified several areas of psychological development associated with peer mentoring. The psychological factors reportedly improved by peer mentors

included increases in self-esteem, confidence, and self-worth, as well as positive changes in peer mentors' attitudes (e.g., Badura et al., 2000; Couchman, 2009; Harris & Larsen, 2007; Heirdsfield et al., 2008; Messias et al., 2009; Sawyer, Pinciaro, & Bedwell, 1997; Temple & Stanish, 2011; Whittemore et al., 2000). To address one aspect of peer mentors' psychological development, Sawyer et al. (1997) measured the changes in self-esteem, personal development, and sexual behavior of 65 undergraduate student peer mentors in a sexuality education program over the course of one year. All variables were measured by the researchers through responses to the following questionnaires: the Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965), the Personal Development Inventory (PDI; Carter 1989), and the Safe Sex Behavior Questionnaire (SSBQ; Dilorio, Parsons, Lehr, Adame, & Carlone, 1992). The participants' mean scores on the measurements of self-esteem, personal development, and safe sexual behavior increased over the duration of the program, however, these increases were not statistically significant (Sawyer et al., 1997). It was suggested that perhaps the low number of participants may have accounted for the lack of statistically significant changes (Sawyer et al., 1997). Similarly, researchers who have evaluated the outcomes of being a peer mentor in programs involving chronic disease counseling (e.g., HIV/AIDS; Messias et al., 2009) and peer outreach program development training (Badura et al., 2000) have also found increases in peer mentor self-esteem. Therefore, peer mentors from a variety of mentoring interventions may develop greater *self-esteem* as a result of their participation in a peer-led program.

Researchers have not only found increases in peer mentors' self-esteem, but also improvements in other psychological factors, including *confidence, self-worth, and overall well-being* as a result of their participation in peer-led programs. Increased confidence emerged as one of the benefits of taking on the role of a peer mentor, as explored in Couchman's (2009) study of

the experiences of 11 undergraduate academic peer mentors involved in the PALS program. According to qualitative analysis, this confidence reportedly stemmed from the peer mentors' new found proficiency in leading groups and efficiency in conveying information to others (Couchman, 2009). Similarly, the mentors identified a sense of satisfaction and well-being associated with their work as peer mentors, as did other individuals who mentored incoming first-year students at a university (Couchman, 2009; Heirdsfield et al., 2008). The researchers suggested that the sense of satisfaction and well-being commonly identified by mentors may be related to their increased perception of self-worth and personal value; the mentors were able to find meaning and purpose in their role, which reinforced the importance of their work as a mentor (Couchman, 2009; Heirdsfield et al., 2008). Hence, another outcome of taking on the role of a peer mentor in a peer-led program may be an overall improved sense of well-being, stemming from increased self-worth, confidence, and self-esteem.

*A constructive change in peer mentors' attitudes* was another result of their participation in peer-led interventions identified by researchers. A change in participant attitude was demonstrated by Harris and Larsen (2007), who evaluated the perceived benefits of an HIV/AIDS peer counseling program on clients as well as the peer counselors. In this program, the clients and the peer counselors were both diagnosed with HIV/AIDS (Harris & Larsen, 2007). According to categorical and thematic analysis of the peer counselors interview transcriptions, being a peer counselor provided the individual with a distraction from their own situation, as well as a change in perspective (Harris & Larsen, 2007). Through working with their clients, the peer counselors were able to reframe their own attitude about living with such a devastating disease by realizing that there were others who were in far worse situations (Harris & Larsen, 2007). The time the peer counselors put into consulting with their clients also provided

mentors with a positive distraction from their typical lives, enabling them to avoid risky behaviors and boredom (Harris & Larsen, 2007). It appeared that as a result of taking on the role of a peer mentor, the participants were able to adopt a constructive attitude regarding their disease, while the program also promoted positive changes in behavior. Similarly, following an exercise intervention geared towards increasing the physical activity levels of disabled youth, Temple and Stanish (2011) found that 86% of peer mentors' perceptions and attitudes of individuals with intellectual disability had changed following the program. This statistic, paired with the finding that 92.9% of the youth mentors liked working with someone with an intellectual disability "a lot" (Temple & Stanish, 2011, p. 214), provides a promising assumption that there was a positive change in the mentors' attitudes about working with peers with intellectual disabilities over the course of the program.

Overall, it appears that after completing a peer-led program as a peer mentor, an individual may improve in several areas of their psychological health, such as their attitudes, self-worth, confidence, and self-esteem. In this way, being a peer mentor may decrease the individual's susceptibility to common psychological disorders, such as depression, as depressive symptoms often include feelings of worthlessness. As illustrated, the personal psychological development associated with holding a role as a peer mentor is well established in certain mentoring contexts, such as academics, chronic disease interventions, and sexual education. However, the physical, mental, and professional developments linked to peer mentors in physical activity programs designed to improve mental health are still unknown.

**Interpersonal outcomes associated with peer mentorship.** The most prevalent interpersonal theme apparent in the literature assessing the experiences of peer mentors in peer-led interventions seemed to be the development of a community (e.g., Couchman, 2009; Temple

& Stanish, 2011; Whittemore et al., 2000). Community, in the scope of this review, is defined as a feeling of camaraderie due to similarities in attitudes, interests, skills, and/or goals among one another (McMillan & Chavis, 1986). A sense of community was developed through establishing friendships and social connections to peers and other mentors within a program, providing empathy and commitment to one another, and establishing reciprocity (Couchman, 2009; Embuldeniya et al., 2013; Heirdsfield et al., 2008; Messias et al., 2009; Temple & Stanish, 2011; Whittemore et al., 2000). Couchman (2009) identified the facilitation of communities as a main theme of academic peer mentors' experiences, and specified certain elements that were necessary to enable a sense of community, including empathy, collaborative techniques, and a philosophy of inclusiveness. Peer mentors provided empathy by being understanding of the challenges their mentees faced and by being sensitive to their mentees' feelings and attitudes. Empathy was an important attribute of peer mentors across a variety of mentoring situations (Couchman, 2009; Heirdsfield et al., 2008; Whittemore et al., 2000). For example, peer mentors who worked with individuals who had recently suffered a myocardial infarction demonstrated empathy and commitment to their peers beyond what was initially expected, which was a necessary element for community and relationship development within that particular mentoring program (Whittemore et al., 2000). Another element, collaborative techniques between the mentor and their peers, was also identified by Couchman (2009) as a necessity for the development of community based on peer mentor experiences. The facilitation of group discussion, group work, and reciprocal questioning were strategies that peer mentors executed in order to enhance collaboration and build a community (Couchman, 2009). Finally, inclusiveness fostered by peer mentors was crucial in community development for academic mentors, which was cultivated by including all members of each group in discussions (Couchman, 2009). Therefore, empathy,



cooperation, and inclusiveness are three factors that may facilitate a strong sense of community between mentors and mentees. This built community illustrates the strong interpersonal relationships that may result from peer mentoring interventions.

The establishment of a friendship between the mentor and mentee may be another important element of community development and the formation of interpersonal relationships within a peer-led intervention. Throughout the literature, many peer mentors began to view their mentees as friends rather than clients as a result of their mentoring program, which furthered the sense of community created for both individuals (Couchman, 2009; Heirdsfield et al., 2008; Temple & Stanish, 2011; Whittemore et al., 2000). One hundred percent of the 14 young adult peer mentors in Temple and Stanish's (2011) physical activity program targeting peers with intellectual disability reported that they had made new friends as a result of taking on the role of a peer mentor, whether it be with fellow peer mentors or their mentees. Similarly, peer mentors in an evaluation of a mentoring program for first-year university students reported that friendships developed with their mentees due to the formation of a relationship that worked both ways (i.e., the mentor benefitted from the mentee, and vice versa; Heirdsfield et al., 2008). Some mentors reported maintaining a connection with their mentees even after the specific program ended; for example, one mentor in the myocardial infarction mentoring intervention reported engaging in weekly phone calls with his mentee for many months after the study completion, and these calls were often up to 40 minutes long (Whittemore et al., 2000). The development of a friendship between the mentor and mentee, or between mentors, throughout peer mentoring programs is another factor, along with empathy, cooperation, and inclusiveness, that may be necessary for the development of a sense of community and a strong establishment of interpersonal relationships within the program.

Additionally, other necessary elements of a mentor-mentee relationship in order to foster interpersonal relationships and a sense of community included sensitivity, commitment, and effective communication (Couchman, 2009; Messias et al., 2009; Whittemore et al., 2000). Peer mentors who participated in the myocardial infarction intervention reported exhibiting great sensitivity to their clients and keeping consistent contact with them throughout the study, demonstrating their full commitment to the client, as well as the study (Whittemore et al., 2000). Similarly, in a comprehensive review of chronic disease peer support interventions, a shared commitment to the program, reciprocal support, and similarity between the mentor and mentee all helped to forge a sense of connection between the mentor and mentee, which led to the development of a community (Embuldeniya et al., 2013). The formation of meaningful human connections and the establishment of communities within several peer mentoring programs throughout the literature decreased mentors own sense of social isolation (Embuldeniya et al., 2013), further demonstrating the positive effects of becoming a peer mentor.

The formation of meaningful connections between the mentees and mentors in peer-led interventions, which may lead to strong interpersonal relationships and a sense of community, can be compared to another basic psychological human need inherent in the self-determination theory. According to Ryan and Deci (2000), relatedness is the need to feel a sense of belongingness or connectedness with others. It is clear that the theme of interpersonal relationship development within peer-led interventions is highly similar to relatedness, due to the shared ideas of connection and comfortability within the two constructs. The link between the dominant theme of interpersonal relationships and the self-determination theory may be of importance because, according to Ryan and Deci (2000), autonomous motivation and an overall sense of well-being is more likely to prosper when an individual's need for relatedness is

satisfied. Therefore, peer-led interventions that foster the peer mentors' need for relatedness may be beneficial for the overall development of the peer mentor.

The necessary elements for establishing strong interpersonal relationships have been addressed for a variety of mentoring situations, including chronic disease and chronic health interventions (Embuldeniya et al., 2013; Messias et al., 2009; Whittemore et al., 2000), physical activity interventions (Temple & Stanish, 2011), and academic programs (Couchman, 2009; Heirdsfield et al., 2008). As mentioned, these elements included establishing friendships, utilizing effective communication, commitment to one another, and providing empathy (Couchman, 2009; Embuldeniya et al., 2013; Heirdsfield et al., 2008; Messias et al., 2009; Temple & Stanish, 2011; Whittemore et al., 2000). Currently, there is gap in the literature that does not address the important factors associated with the development of a community for peer leaders and clients involved in peer-led physical activity programs for mental health, such as Western Wellcat.

**Negative outcomes associated with peer mentoring.** The literature supports several benefits associated with holding the role as a peer mentor across a variety of mentoring interventions, however, it is important to review the potential negative outcomes and risks associated with peer mentoring. In their review of chronic disease peer support interventions, Embuldeniya et al. (2013) found that emotional entanglement was a risk associated with the emotional connections created between mentors and mentees. Emotional entanglement may develop when a client's personal or health problems become too much for the mentor to handle, when boundaries in the mentor-mentee relationship become blurred, or when severing the mentor-mentee relationship leads to a sense of loss for the mentor (Embuldeniya et al., 2013; Messias et al., 2009; Whittemore et al., 2000). For example, in the myocardial infarction (MI)

peer support study conducted by Whittlemore et al. (2000), one of the elder clients receiving peer support had lost her daughter during her recovery from an MI. The authors found that this client's peer mentor began to feel emotionally entangled due to the sadness she personally felt from listening to her client speak about the tragic incident, yet still provide her with support. In the same study, Whittlemore et al. (2000) also found vulnerability of the peer mentors to be a potential problem associated with peer mentoring. For some participants, there were instances when the peer mentors had to recall difficult parts of their own recovery from an MI. When the peer mentors revisited these memories of their own experiences, for some individuals it also brought back the emotions that accompanied those memories, such as sadness or being scared. According to the researchers, these emotions had the potential to make the peer mentors feel vulnerable in a time when they were supposed to be providing support to others. However, according to participant responses, these instances were minimal and did not impede the peer mentors' ability to be supportive. Therefore, emotional entanglement and vulnerability are two negative outcomes that may be associated with taking on the role of a peer mentor.

Though emotional entanglement and vulnerability may be the most impactful negative outcomes associated with peer mentorship, issues with relationship termination and overall frustrations with the mentoring process were also apparent problems found in previous examinations. Peer mentors who provided support for others diagnosed with HIV/AIDS reported that ending the relationship with their mentee evoked conflicting feelings (Messias et al., 2009). Some peer mentors and their mentees apparently had trouble separating a counseling relationship from a friendship, an issue of entanglement, which led to feelings of guilt when they were instructed by the researchers to discontinue contact with their client. For other peer mentors, the authors found that the termination of the relationship was a more comfortable process, as they

were able to separate their counseling relationship from a friendship at the beginning of the program (Messias et al., 2009).

In addition to relationship termination, researchers have identified some minor frustrations associated with taking on the role of a peer mentor. Mentors working with incoming freshmen at a university addressed some frustrations of mentoring, including difficulty in establishing and maintaining contact with their peer, scheduling, and the time commitment of the mentoring program as a whole (Heirdsfield et al., 2008). Sometimes, these frustrations led to the peer mentor doubting their own ability (Heirdsfield et al., 2008). For example, the researchers found that the time commitment of the mentor and the mentee sometimes led to mentee disengagement, which some academic peer mentors took personally. In these cases, the peer mentors attributed their mentees' dropout to the mentors' own preparation and capabilities (Heirdsfield et al., 2008). When recalling the many benefits associated with taking on the role of a peer mentor, the frustrations and drawbacks of peer mentoring appear to be minimal. It is important for future researchers that explore the experiences of peer mentors involved in peer-led programs to assess and report any negative outcomes associated with the peer mentors' role to develop further understanding in this area.

### **Summary**

The efficacy of exercise interventions to reduce symptoms of depression has been extensively supported (e.g., Byrne & Byrne, 1993; Josefsson et al., 2014; Keeler, 2015; Rieck, 2012; Ströhle, 2009), while some support has also been provided for the anxiolytic effects of exercise (e.g., Bartley et al., 2013; De Moor et al., 2006; Rebar et al., 2015; Wipfli et al., 2008). There is also research support throughout the literature that provides rationale for the use of peer mentors in interventions geared towards altering the attitudes and behaviors of individuals

(Badura et al., 2000; Couchman, 2009; Ebreo et al., 2002; Embuldeniya et al., 2013; Ginis et al., 2013; Harris & Larsen, 2007; Heirdsfield et al., 2008; Keeler et al., 2013; Messias et al., 2009; Whittemore et al., 2000). The combination of these two types of interventions has also been supported, however not nearly as extensively (Keeler, 2015; Pfeiffer et al., 2012; Rieck, 2012). Nevertheless, prior research provides support for the implementation of a peer-led physical activity program designed to improve the mental and physical well-being of individuals struggling with depression, such as the Western Wellcat program.

The motivation for an individual to participate as a peer mentor in a peer-guided program includes altruistic reasons, such as supporting others, as well as egotistic reasons, such as to fulfill class credit (Harris & Larsen, 2007; Klein & Sondag, 1994; Messias et al., 2009; Temple & Stanish, 2011). There are several positive outcomes reportedly associated with taking on the role as a peer mentor, such as professional skill development (Harmon, 2006), increases in intervention-relevant knowledge (Badura et al., 2000; Couchman, 2009; Harris & Larsen, 2007), and positive changes in behavior (Harris & Larsen, 2007; Temple & Stanish, 2011; Whittemore et al., 2000). Similarly, increases in peer mentors' self-esteem, confidence, self-worth, and attitude are personal psychological improvements that have been recognized through being a peer mentor in a wide array of peer-guided programs (Badura et al., 2000; Couchman, 2009; Harris & Larsen, 2007; Heirdsfield et al., 2008; Messias et al., 2009; Sawyer et al., 1997; Temple & Stanish, 2011; Whittemore et al., 2000). Further, the development of strong interpersonal relationships and a sense of community have emerged as two other key benefits for both the mentors and mentees involved in peer-guided interventions (Couchman, 2009; Embuldeniya et al., 2013; Heirdsfield et al., 2008; Messias et al., 2009; Temple & Stanish, 2011; Whittemore et al., 2000). The negative effects associated with holding the role as a peer mentor include the risk

of emotional entanglement (Embuldeniya et al., 2013; Messias et al., 2009; Whitemore et al., 2000), relationship termination (Messias et al., 2009), and minor frustrations related to issues such as time consumption and scheduling (Heirdsfield et al., 2008).

This review has covered the experiences of peer mentors in a variety of mentoring contexts, however no research has identified that of peer mentors in a program such as Western Wellcat. The current study aims to address gaps in the literature of the assessment of peer mentors' experiences in a peer-led exercise intervention designed to decrease individuals' symptoms of depression and anxiety.

## **Chapter III**

### **Methods and Procedures**

#### **Introduction**

The purpose of this study was to qualitatively investigate the experiences of peer mentors involved in a peer-led physical activity program called Western Wellcat. The primary role of the peer mentors in the Western Wellcat program is to be a supportive and reliable exercise partner for students who experience clinical depression and/or anxiety. In the current study, the researcher used in-depth interviews to explore the peer mentors' experiences in the Western Wellcat program, including the peer mentors' motivations to sign up for the program, their expectations for the program, and the ways in which the program influenced them. The interviews also solicited any suggestions from the peer mentors for improvement of the Western Wellcat program.

#### **Description of Study Population**

Participants for this study were a total of eight individuals who were current students or alumni from a mid-size, northwest university's kinesiology major and minor programs. A total of four men and four women who had a mean age of 23.5 years agreed to participate. The participants applied, were interviewed, and selected to serve as peer mentors in either the 2015 (n = 4) or 2016 (n = 4) Western Wellcat program. All participants were volunteers for the research study and signed an informed consent form prior to interviews (see Appendix A). Seven participants worked with their mentees in the Western Wellcat program for a six-month period (i.e., winter and spring quarters), while one participant worked with their mentees for a three-month period (i.e., winter quarter only). Each participant worked with between two and four clients during their three- to six-month time period as a peer mentor. Additional participant



characteristics can be found in Table 1. As part of the program structure, the peer mentors were required to keep a journal of their client meetings, which included details about the types of physical activities performed, their clients' mood, and any other relevant comments. The program coordinator met with the peer mentors on a bi-weekly basis to review their journals, answer questions, and provide support to the peer mentors. The peer mentors, program coordinator and program director met two to four times per quarter for group processing meetings. The researcher of the current study was the 2016 Western Wellcat program coordinator and had established relationships with the peer mentors of the program that year. The pre-existing relationships between the researcher and the 2016 Western Wellcat peer mentors may have contributed to the comfortability of the peer mentors during interviews, and in turn the quality of the peer mentors' responses.

Table 1

*Participant Characteristics*

Code Name	Gender Identity	Kinesiology Major or Sport Psychology Minor	Quarters in Program	Number of Clients
P1	Female	Sport Psychology	2	3
P2	Male	Kinesiology	2	3
P3	Female	Kinesiology	2	4
P4	Female	Kinesiology	2	4
P5	Male	Kinesiology	2	3
P6	Male	Kinesiology	2	3
P7	Male	Sport Psychology	1	2
P8	Female	Kinesiology	2	3

## **Design of the Study**

In the present study, a qualitative design was utilized with an integrative analysis, employing both inductively developed codes as well as a deductive template based on a theoretical framework (Bradley, Curry, & Devers, 2007). A line-by-line, open-coding process was utilized initially, which involved identifying and encoding themes prior to any theoretical interpretation (Boyatzis, 1998; Thomas, 2006). Following inductive analysis, a category template was developed (see Appendix B; Fereday & Muir-Cochrane, 2006) based on the three basic human psychological needs according to the self-determination theory: autonomy, competence, and relatedness (Ryan & Deci, 2000). Themes gathered from the inductive, open-coding process were assigned to each category based on how well their meaning fit the category description, and themes that did not represent any of the three basic psychological needs were placed in an “other” category. This fusion approach of “data-driven” and “theory-driven” coding allowed raw themes to emerge from the interview segments naturally while also guiding the theoretical framework to determine if the peer mentors’ experiences could be explained by the self-determination theory (Braun & Clarke, 2006; Fereday & Muir-Cochrane, 2006). The researcher asked open-ended questions to examine the ways in which the Western Wellcat program influenced them. The interview questions were developed before the consideration of analysis with the self-determination theory, and were, therefore, atheoretical in order to allow for themes to be inductively developed.

## **Data Collection Procedures**

**Measurement techniques and procedures.** The following procedures were accepted by the Institutional Review Board of Western Washington University (see Appendix D). Participant contact information was obtained from the Western Wellcat Director. The primary researcher

contacted each of the eight former peer mentors via telephone and gave a description of the study as well as asked if they were interested in participating. The participants were then emailed an informed consent form (see Appendix A), which was signed, dated, and emailed back to the primary researcher if the individual chose to participate. Each interview was scheduled based on the participant's availability. All participation in the research study was completely voluntary and no compensation was given for participation. Identifying information of each participant was confidential; all informed consent forms of participants were kept in a locked cabinet separate from any documentation of interview responses, including audio recordings and transcriptions. All participants were assigned a participant number, which was used in lieu of participant names throughout data analysis and when reporting results. The primary researcher was the only person who knew the name associated with each participant number, and therefore which interviewee responses belonged to which participant at any given time. All interview transcriptions were kept in a password protected file on the primary researcher's personal computer, which only the primary researcher had access to, and all audio recordings were deleted after transcription.

**Instrumentation.** Prior to the interview, participants were asked demographic questions, including age, gender identity, ethnicity, year and quarter they participated in the program, academic major/degree, and current profession. After gathering demographic information, informal small-talk was utilized in order to establish rapport between the interviewer and interviewee; this small-talk sometimes reflected information gathered during the demographic questions (e.g., "tell me about your current position"). The primary researcher used a semi-structured interview guide during the interviews (see Appendix C). The interview guide included six open-ended questions with follow-up probes to ensure adequate coverage of each topic. This interview guide served as a tool to discuss the peer mentors' perceived experiences in the

Western Wellcat program and any perceived influences related to their participation in the program. Each interview was conducted over the phone and audio recorded using a Sony ICD-PX333 digital voice recorder and an Olympus TP-8 telephone pick-up microphone. The interviews lasted between 21.5 and 47 minutes, with an average duration of 34 minutes. The interviews were transcribed verbatim by the researcher, including all filler words.

### **Data Analysis**

An inductive analysis of the raw data was performed first. The primary researcher thoroughly listened to, transcribed, and read each interview to gain a full understanding of the content. Line-by-line, open-coding process followed transcription (Braun & Clarke, 2006). During this process, specific text segments and key points related to the research questions were identified and highlighted within each transcript (Braun & Clarke, 2006; Thomas, 2006). The researcher coded in the order of research questions, rather than by interviewee; *all* participant responses to the first research question were coded before coding responses to subsequent research questions. Highlighted text segments were assigned a code label based on their meaning. For example, the text segment “I was motivated to sign up for the Western Wellcat program to receive field experience credit” may have been represented by the code label “college credit” (Braun & Clarke, 2006; Thomas, 2006). During the open-coding process, individual text segments may have been assigned a code label once, many times, or not coded at all as the primary researcher saw relevant (Braun & Clarke, 2006). All codes were compiled into list form, and thematic analysis was then used to group responses with similar meanings across all participants’ transcripts in order to determine overarching themes (see Appendix E; Braun & Clarke, 2006). The specification of a theme was dependent on how well it captured an idea that was similar across participant responses in relation to the overall research questions (Braun &

Clarke, 2006). At this stage, some codes may have formed main themes, others may have formed sub-themes, and others may have been discarded (Braun & Clarke, 2006). Once all themes were thoroughly reviewed and refined for each research question, the final themes were given a title, accompanied by corresponding text segments, and organized in a table format (Fereday & Muir-Cochrane, 2006; Thomas, 2006).

Following inductive analysis, the primary researcher used the deductively-determined, higher-order categories specified in the category template to identify any previously determined themes that were directly related to the self-determination theory's three basic human psychological needs: autonomy, competence, and relatedness (Ryan & Deci, 2000). The category template included category labels, accompanying definitions, and descriptions of how to know when a code represented a particular psychological need (see Appendix B; Boyatzis, 1998). All theme assignments were decided upon by the primary researcher and two members of the research committee; themes were assigned to a specific psychological need once a consensus was reached by the research team. A fourth member of the research team reviewed and confirmed the final theme assignments to ensure inter-rater reliability (Thomas, 2006). The themes that seemed to represent a psychological need were organized under the corresponding category in a diagram created by the researcher (see Figure 1; Fereday & Muir-Cochrane, 2006). During this process, there were no inductively determined themes that appeared to be unrelated to the constructs of the self-determination theory; thereby, no "other" category was created (Fereday & Muir-Cochrane, 2006).

## Chapter IV

### Results and Discussion

The purpose of this study was to qualitatively evaluate the experiences of peer mentors who were involved in a peer-led physical activity program called Western Wellcat. The research questions that guided this study included: (1) What motivated the peer mentor to sign up for the Western Wellcat program as an exercise buddy? (2) What expectations did the peer mentor have for the Western Wellcat program? (3) What did the peer mentor get out of their experience in the Western Wellcat program? (4) How did participating the Western Wellcat program affect the peer mentor outside the program? and (5) How can the Western Wellcat program be improved? Following inductive analysis, themes were identified in an attempt to answer each research question. Deductive analysis based on the three basic human psychological needs (Ryan & Deci, 2000) was also performed on all questions that specifically focused on the peer mentors' experiences within the program (i.e., questions 3 and 4) to evaluate if the self-determination theory could explain the peer mentors' experience in the program. All participants who began the interview provided responses for each of the five research questions. The presentation and interpretation of the results for each research question are outlined in this section.

#### Peer Mentor Motivation

In response to the first research question, what motivated the peer mentor to sign up for the Western Wellcat program as an exercise buddy, five themes emerged (see Table 2). *Helping others* emerged as a motivator for participation in the Western Wellcat program by 75% of the participants. For example, “*Just being able to help people and just do customer service... is something that I am very passionate about*” (P2) and “*the ability to help out my community... to just help out people around me that I may not know are suffering from these ailments, that was a*

Table 2

*Themes of Peer Mentors' Motivations to Mentor for the Western Wellcat Program*

Theme (frequency)	Examples
Help others (75%)	“To just help out people around me that I may not know are suffering from these ailments” (P7).
Gain experience in field (62.5%)	“I wanted experience in the field closer to sport psych... because there was nothing else that was similar in any way” (P1).
Philosophy of program (50%)	“My main motivation was to be part of something that shared my philosophies on fitness and how it improves overall well-being” (P4).
Fulfill college credit (37.5%)	“I just really needed an internship to graduate” (P8).
Encouragement from others (25%)	“Three of my friends forwarded me the email... and one was like ‘this is so you, you should do it!’” (P3).

*huge aspect for me”* (P5). For some, their motivation to help others in the Western Wellcat program came from having personally experienced depression and/or anxiety in the past:

I just really like to help people, so the idea of reaching out to people who maybe are suffering from anxiety and depression, since I’ve had it before... knowing that it’s really difficult and having someone there for you helping the process in any way... I just thought it would be nice to give back a little bit (P3).

*Gaining experience in the field* was another factor that emerged from 62.5% of the participants’ as a motivation for signing up for the Western Wellcat program. For one

participant, gaining experience in the field was her only motivation: *“That was my main reason for doing it because I had enough credits... so it was just about getting experience in the field”*

(P1). Several others also identified gaining experience as one of their primary motivators:

*“Doing something within the school, and especially within the program that I was in, was the main reason”* (P6) and *“the opportunity to work with that focus group was a huge positive for me”* (P7).

The *philosophy of the program* motivated 50% of the participants to apply to the Western Wellcat program. For example, *“I wanted to be a part of this program that was starting at Western because it really seemed like a good program to get going in a positive light”* (P8) and *“I just... was inspired by the program”* (P5). One participant was motivated to sign up because the philosophy of the Western Wellcat program aligned with her personal beliefs about wellness:

I think that the Western Wellcat program had a really good vision of what fitness could do for mental health and I think that was my main motivation... to be a part of something that shared my philosophies on fitness and how it improves overall well-being (P4).

Another factor that emerged from 37.5% of participants as a motivator to be a mentor for the Western Wellcat program was to *fulfill college credit*. For example, one participant stated that he participated *“ultimately... because it was an option for internship”* (P6) and another stated that he was motivated *“number one, because I needed the credits”* (P2).

Finally, *encouragement from others* emerged as another motivator for 25% of the mentors. For example, one participant was encouraged by the program director: *“[The program director] expressed interest in me... being a part of the program. And that was always kind of exciting, just to hear a professor say they think you’d be good at something”* (P7). Another participant was encouraged to participate by her peers:



Three of my friends forwarded me the email even though I already got it, and one was like ‘[P3] this is so you, you should do it!’ and I was like, ‘Okay’ and I read more into it and thought it sounded really awesome. It was more... peer motivation and then as I looked more into it, it was a self-motivation to do it (P3).

Prior research has indicated that the most prevalent reasons individuals pursue the role of a peer mentor include a combination of both altruistic and egotistic motivations (e.g., Harris & Larsen, 2007; Klein & Sondag, 2015; Messias et al., 2009; Temple & Stanish, 2011), and this finding was partially replicated for the motivations of the peer mentors involved in the Western Wellcat program. The altruistic desire to *help others* was a primary motivator for several peer mentors involved in a variety of mentoring programs throughout the literature (e.g., Harris & Larsen, 2007; Messias et al., 2009, Temple & Stanish, 2011), which is in line with the primary motivation of the peer mentors in the current study. The egotistic motivation of *gaining experience* was also a theme that emerged by the peer mentors in the current research as a motivation to sign up for the Western Wellcat program that found in other mentoring programs (e.g., Klein & Sondag, 2015; Temple & Stanish, 2011). Temple and Stanish (2011) also found that *fulfilling class credit* was a theme regarding peer mentors’ motivation to sign up for a partnered physical activity program (Temple & Stanish, 2011); the egotistic motivation of fulfilling credit was also consistent with the peer mentors in the current study.

There were two themes regarding peer mentors’ motivations to sign up for the Western Wellcat program that were inconsistent with past literature on peer mentorship: *philosophy of the program* and *encouragement from others*. The current findings add to the literature on peer mentor motivation by suggesting that along with the altruistic and egotistic reasons listed above, a belief in the philosophy of the program and encouragement from others are two other

motivations that may cause a peer mentor to sign up for a peer-led program, such as the Western Wellcat program. Students may consider a peer-led program to be worthwhile if they believe they will personally gain something and/or help others gain something from the experience, or if the concept of the program aligns with their personal beliefs. If a program is considered worthy, that alone may get students interested in participating. Therefore, the directors of peer mentored programs may choose to advertise both the potential mentee *and* mentor outcomes of the program, as well as an overview of the program philosophy when recruiting mentors to increase participation. Further, peer mentored programs may be used as a developmental tool in working with students as either a mentee in the program, or as a mentor.

### **Expectations of Peer Mentors**

Four themes emerged from participants in response to the second research question (see Table 3): what expectations did the peer mentor have for the Western Wellcat program? Half of the participants expected the program to be a *difficult experience for the mentor and/or the client*. One participant expected their experience in the program to be emotionally challenging:

I think I actually just expected it to be a very challenging experience...because I really love working with people but it's a challenge when you don't always, I guess, see people improving or people that are committed to making a positive change in their life. So I thought this might actually be an emotionally challenging role for me (P8).

Other participants expected it to be difficult to establish a relationship with their client. For example, in recalling his thoughts before starting the program, one participant stated, "*I hope I can get along with and connect with this person and it's not just something they're not into because of personality conflicts*" (P6), while another stated, "*I thought it would be a lot more difficult to connect with the participants*" (P5). One participant expected the program to be

Table 3

*Themes of Peer Mentors' Expectations of the Western Wellcat Program*

Theme (frequency)	Examples
Difficult experience for mentor/client (50%)	"I thought that this might be an emotionally challenging role for me... I just kind of expected it to be challenging because I expected to work with buddies that were really down on themselves" (P8).
Help others (50%)	"I expected to help people" (P3).
Apply knowledge (37.5%)	"I expected to exercise a lot more of my skills in [caregiving]" (P4).
Learn (25%)	"[I expected to learn] different ways to react in different situations and how important it was to notify the right person if they did need further help" (P8).

difficult for the client as well: *"I think that's probably my biggest expectation, was just to be ready for someone who is maybe apprehensive about getting into the program... They might have kind of a lot of anxiety about who their partner is going to be"* (P5).

*Helping others* was another expectation that emerged from 50% of the participants regarding their experience in the Western Wellcat program. For example, *"[one expectation was] that I was going to be helping an individual with exercise"* (P2) and *"I knew that I would have the opportunity to make an impact in someone's life"* (P7). One participant expected that all of her clients would improve as a result of the program:

I expected all of my clients to get better... To maybe, towards the end of it, to start going extra days on their own... I was hoping by “better”, I mean that they were going to not need me as much to go to the gym (P3).

Another expectation that emerged from 37% of the participants was that they would be *applying the knowledge and skills* that they had learned throughout their college education in their role as a peer mentor in the Western Wellcat program. For example, *“I had expectations of myself going in, trying to see if I could test my knowledge of mental health, test my knowledge in exercising”* (P4) and *“I think I expected... to have to do a lot more sport psych work with them”* (P3).

Finally, 25% of the participants expected to *learn* as a result of their participation in the program. One participant expected to learn about himself: *“I had a little bit of an expectation going into it that... I would learn a little bit of something about myself”* (P7), while another participant expected to learn about maintaining professional relationships: *“I would learn a lot about HIPAA policies and things like that... Just knowing that it would be a very professional experience”* (P8).

The expectations of individuals who are about to begin mentoring in a peer-led program have not yet been studied. Therefore, the themes regarding the peer mentors’ expectations for the Western Wellcat program aid in closing this gap in this area. The current researcher found that peer mentors may expect mentoring programs to be difficult experiences for both the mentor and the mentee, to help others within the program, to apply relevant knowledge, and to learn. Many of the peer mentors in the current study did not explicitly state whether or not their expectations were fulfilled because the researcher did not ask about the fulfillment of each of the peer mentors’ expectations. However, when the researcher analyzed participant responses for

expectation fulfillment, it appeared that the peer mentors' expectations were only *unfulfilled* when their expectation was different from their actual responsibilities in the program. For example, some peer mentors expected to do more counseling work or act as a personal trainer within the program; these expectations were unfulfilled because those responsibilities were outside the realm of their role in the Western Wellcat program. Based on the current study, the directors of peer-led programs may want to give potential mentors the opportunity to discuss expectations before the start of the program to ensure that the mentors' expectations align with their actual responsibilities.

### **Experience of Peer Mentors**

In response to the third research question, what did the peer mentor get out of their experience in the Western Wellcat program, 13 themes emerged (see Table 4). The two most reported themes regarding the peer mentors' experiences were *personal development* and *satisfaction in helping others*. Areas of *personal development* were mentioned by 87.5% of the participants as something that they got out of the experience of being a peer mentor in the Western Wellcat program. *Personal development* included any reference to the program serving as a learning experience for the peer mentor or contributing to their overall personal growth, and surfaced as a result of: the participants trying new things, developing interpersonal skills, learning important life lessons, and applying those skills and lessons to their own lives. For example, one participant stated, "*I think it strengthened me and my outlook on life in general... knowing that talking about something that might make us feel vulnerable can actually make us feel strong*" (P4). Another mentor claimed that "*lessons and skills that I learned [in the program] are worth their weight in gold... It made me feel like a more well-rounded person at the end of the day*" (P7). One participant valued that the Western Wellcat program was a novel

Table 4

*Themes Representing Outcomes of Peer Mentors' Experiences*

Theme (frequency)	Examples
Personal development (87.5%)	"It's actually helped me with a lot of personal growth" (P8).
Satisfaction in helping others (87.5%)	"It made me feel really good... Like I was making a difference" (P6).
Relationship with buddy/mentor (75%)	"They seemed just like friends more than that I had to be there or anything" (P1).
Professional development (75%)	"Learning how to talk to them in... a professional way" (P2).
Emotional difficulties (75%)	"It was hard working with some of the buddies that were going through a lot of things" (P8).
Time management (75%)	"I became more organized as an individual because without me being organized I didn't know what times I could meet with my buddy" (P2).
Professional difficulties (75%)	"Fun challenge... Trying to figure out how to toe the line between being a workout buddy and being an instructor" (P7).

Table 4 continued

Theme (frequency)	Examples
Interpersonal awareness (62.5%)	"You can't really judge a book by its cover" (P4).
Reciprocal growth (62.5%)	"I just think that it was a mutual growth for both the buddy and the client" (P3).
General positive experience (62.5%)	"It was definitely a highlight of college, I'd say" (P6).
Personal fitness benefits (37.5%)	"Most of the [physical activity] that I did ended up being perfect for me" (P1).
Self-awareness (37.5%)	"You realize stuff about yourself" (P3).
New perspectives of mental health (37.5%)	"I learned a lot about mental health situations that students are going through... really opened up my perspective" (P4).

experience for him: *"It's just a good time for me to work on my own skills... I thought of it as an opportunity to just step out of my own comfort zone and do something I have never done before"* (P2).

*Satisfaction in helping others* was also a theme that emerged from 87.5% of the participants as something that they got out of their experiences. In other words, many participants claimed that it "felt good" to help their clients in the program. For example, one mentor stated that *"it was nice to be someone that they trust... to be that person that they felt*

*they could come and say all this to instead of bottling it up” (P3). Further, another stated that “just knowing that they trusted me into being able to open up felt super good” (P2).*

Another theme regarding the outcome of the peer mentors’ experiences was the *strong relationships* they developed with their buddies and/or their fellow mentors, which emerged as a theme for 75% of the participants. One participant illustrated the connection she developed with her client by stating that she did not want the program to end: *“I wanted them to get better because, I mean, you develop care for them, you know, an interest in their well-being... I just didn’t want to leave yet. I wanted to keep helping” (P2).* Others claimed, *“You didn’t really have the role of mentor and student... it felt like it was even. We were on the same level” (P6)* and *“it was very empowering... to share that connection [with your buddy]” (P4).* One participant elaborated on the relationships she formed with the other peer mentors:

You’re all in this same situation, so you want to kind of help each other out if you can. It was nice knowing that they were there, because... it was like a support group almost. If you needed help with anything, you could talk to them or hearing other stories and knowing that you’re all kind of in the same place or very similar places (P1).

Areas of *professional development* also emerged from 75% of the participants as an outcome of their participation in the Western Wellcat program. *Professional development* was coded when participants gained experience or learned professional skills related to the peer mentors’ academic or career interests. For example, one participant claimed, *“every situation that I encountered in the program has provided me with the knowledge that I use currently” (P7).* Another participant has applied many of the lessons she learned in the program to her current job:



I got a really good feel for upholding HIPAA policies and just how important it is when working in a professional relationship with others. And I've really carried that over to working at my current job... like how important it is to hold personal information, to not share that, and it's also really helped me in interactions with patients (P8).

A theme that emerged for several participants (75%) was the *emotional difficulties* that came from working with a peer with depression and/or anxiety. *Emotional difficulties* included any mention from the peer mentors regarding the transfer of their clients' mood and/or emotional challenges to their own emotional state. For example, one participant stated, "*their problems weigh on your mind more... I couldn't just completely tune it out*" (P6), and another claimed, "*sometimes it was a lot for me to handle internally, you know, because I just care so much and it's hard to see people be that sad*" (P3).

Along with emotional difficulties, *professional difficulties* also emerged as a theme for 75% of the participants. *Professional difficulties* were coded when participants stated any difficulties in maintaining or abiding by the guidelines of the peer mentors' role in the Western Wellcat program (e.g., relationship boundaries, confidentiality, support vs. instructor role). For some, it was difficult to find the balance between mentor and friend, or between workout buddy and personal instructor. For example, "*sometimes it would be really hard not to give advice*" (P1) and "*it was kind of a balancing act between being professional and not trying to break boundaries... I struggled probably the most with not being too buddy-buddy with them*" (P4). Some mentors also found it difficult to maintain confidentiality: "*Keeping your clients' privacy sometimes was a little difficult*" (P3). Other professional difficulties included saying "no" to a client who wanted to do unsafe exercises (P2), feeling incompetent at certain activities (P2), and getting frustrated when clients did not try new activities (P6).

*Interpersonal awareness* was another theme that emerged from 62.5% of the participants' responses, which referred to any change or reinforcement of the peer mentors' perception or understanding of others. This interpersonal awareness is perhaps best illustrated through the common phrase "you can't judge a book by its cover", which was explicitly stated by three participants (P4, P6, and P7). One participant also claimed, "*you realize that everyone is going to have a good or bad day, on and off, and it's going to be very variable*" (P1). Further, interpersonal awareness was also demonstrated by the responses of two other participants: "*I've worked with hundreds of patients [in her current work setting] over the past year and [the program] has really helped me to keep in mind body language*" (P8) and "*[I learned that] sometimes you just need to listen to people because... sometimes people need someone to listen to them*" (P3).

Another theme that emerged from 62.5% of participants was *reciprocal growth*, or the idea that the mentor learned as much from the program as the client did. For example, one participant commented on the mutuality of learning between the mentee and mentor: "*It sounds kind of cliché, but I felt like I definitely learned as much from the clients that I had as they might have from the experience*" (P5). Another mentor found the conversations that he had with his clients to be therapeutic: "*sometimes it was a little therapeutic for the mentor too, I thought, to back-and-forth between somebody*" (P6).

*General positive experience* was a theme that emerged from 62.5% of the participants, which referred to any enjoyment that the peer mentors experienced in the program overall. For example, one participant stated, "*[the program] was probably a highlight of the kinesiology program for me*" (P5), while another claimed, "*[the program] was definitely a highlight of college*" (P6). Others expressed more broad positive statements: "*It was a really good*

*experience*” (P3), “*it was pretty cool to be a part of*” (P4), and “*it was a lot of fun*” (P8). Some participants mentioned an interest in becoming more involved with the program (P5 and P6), and one participant claimed, “*it was so much more than an internship*” (P5).

Another theme that emerged from 37.5% of the participant responses was *personal fitness benefits*. *Personal fitness benefits* included any improvements to the peer mentors’ overall physical fitness or to their physical activity schedule as a result of exercising with their client(s) in the Western Wellcat program. For example:

I found some new exercises that I enjoyed... One of my buddies and I, we had this goal that we wanted to be able to run all the way up the arboretum hill by the end of the quarter. And run all the way up and keep running for a while, and we did it! It was so exciting... Even I met a goal that I hadn’t been able to meet (P3).

Another participant stated, “*I would always exercise on my own, and then I would exercise with my buddy, so the volume increased I would say a lot... I was probably a little bit more fit*” (P2).

Another theme within the experiences of the peer mentors, *self-awareness*, emerged from 37.5% of the participant responses. *Self-awareness* was coded when the participants improved their awareness of their own thoughts, behaviors, and/or interests as a result of the program. Some participants increased their self- awareness through the opportunity for self-reflection. For example:

I could kind of self-reflect... sometimes things that they may say were... not good things to say about themselves... I would kind of think about it in my way, like ‘oh, I hope I never say anything like that about myself’ (P1).

The ability to self-reflect was also cited by another participant: “*I would say it was a lot of personal reflection and kind of reflecting on what affects me and my mental health*” (P4). In

regard to awareness of her own physical activity preferences, another participant stated, “*you realize stuff about yourself... It’s relaxing to know that I do need an exercise buddy, it’s not just like I don’t like exercising as much as I used to*” (P3).

The last theme regarding the peer mentors’ experiences with the Western Wellcat program was *new perspectives of mental health*, as cited by 37.5% of the participants. *New perspectives of mental health* referred to the participants learning new ways of understanding how people perceive and cope with depression and anxiety as a result of their participation in the program. For example, one participant stated, “*[it changed] my personal outlook on mental disorders... It gave you kind of an insight, through a lens, into what they’re going through, and it’s eye opening*” (P7). Another participant became more aware of what others may be going through:

I learned a lot about mental health situations that students are going through... I think having that experience really opened up my perspective on what other people are going through and what I might not see every day is something that someone struggles with every minute (P4).

When the peer mentors were asked how participating in the Western Wellcat program impacted them *outside* of the program (research question #4), they responded in two different ways: the ways that they were affected *during* the program and the ways that they were affected *after* the program. The peer mentors’ responses to how the Western Wellcat program impacted them outside their primary role as a peer mentor (e.g., meeting with clients) *during* their time in the program were consistent with their overall experience within the program, and were, therefore, included in this section. One previously mentioned theme regarding the peer mentors’ experiences was identified by 50% of participants in response to how the peer mentors were

affected outside the program/during the program: *professional difficulties*. Several professional difficulties surfaced as difficulties in maintaining client confidentiality. For example:

Trying to keep it, you know, secretive and follow the research rules and stuff, and keeping your clients' privacy sometimes is a little difficult when you run into your friends, or the fact that the program gets announced to your entire major (P3).

Two other participants cited confidentiality as a professional difficulty that they experienced outside of exercising with their buddies: "*Passing [my client] on campus... or seeing another buddy with their exercise partner, and making sure that you don't make it obvious*" (P1) and "*it was challenging at times just being on a university campus and trying to keep that confidentiality component of it*" (P5). Other professional difficulties involved maintaining professional relationships with clients outside of the program: "*One I got a little worried that he liked me past just being a buddy*" (P1) and "*it was kind of weird because he would contact me on social media and friend request me... It was a little awkward*" (P8). Peer mentors received support and training on how to handle difficult mentor-mentee interactions in the Western Wellcat program, however, these types of interactions were still perceived as difficulties for some participants.

A new theme that emerged in response to how the peer mentors were affected outside the program/during the program was *time management* (75%). Some participants found scheduling their clients into their normal routine to be easy (P1 and P3) or felt that the program helped them become more organized (P2), while others found time management to be challenging (P5, P6, and P8). For example, one participant stated, "*[it was] a relief on my time management schedule to already have the opportunity there to have to go [to the gym]*" (P3), whereas another participant claimed, "*time management of it all was I think the hardest thing for me*" (P5).

There were thirteen experience themes associated with the peer mentors' participation in the Western Wellcat program in the current study. Several of these outcomes have been found in other peer-led programs throughout the literature, while others emerged as new themes that add to the existing literature. *Professional development* has been found as an outcome of peer mentorship across a variety of mentoring programs, including college freshman counseling programs (Harmon, 2006) and peer health education programs (Badura et al., 2000). Examples of professional development that were consistent throughout the research, including the current study, included better management skills, enhanced interpersonal skills, and the ability to adapt to situations (Badura et al., 2000; Harmon, 2006). Other professional skills cited by the peer mentors in the current study that were new included active listening skills and how to uphold HIPPA policies/maintain client confidentiality. The peer mentors in the Western Wellcat program received training in how to be an active listener and how to maintain client confidentiality, as these are two of the most important aspects of the program. Therefore, the new professional skills that emerged in the current study are not surprising. The ability to be an active listener and uphold client confidentiality are skills that may carry over into the peer mentors' interpersonal and professional lives outside the scope of the program, and did for some peer mentors in the Western Wellcat program.

The development of friendships between the mentees and mentors in various peer-led programs throughout the literature was also a dominant theme regarding the peer mentors' experiences (e.g., Couchman, 2009; Heirdsfield et al., 2008; Temple & Stanish, 2011; Whittemore et al., 2000). Past researchers have found that many peer mentors viewed their mentees as friends rather than clients within their programs (Couchman, 2009; Heirdsfield et al., 2008; Temple & Stanish, 2011; Whittemore et al., 2000) and that the relationship that formed

between the mentor and the mentee worked both ways (i.e., the mentor benefitted from the mentee, and vice versa; Heirsdfeld et al., 2008). Therefore, the *strong relationships* that the peer mentors in the current study formed with their clients and their fellow mentors and *reciprocal growth* were two themes regarding the experiences of Western Wellcat peer mentors that are consistent with previous research. In this way, it appears that a mutual connection between the mentor and mentee may need to take place for peer mentorship to be beneficial for both individuals.

The *emotional difficulties* that the peer mentors in the Western Wellcat program experienced are in line with the emotional entanglement experienced by the peer mentors in some chronic disease, peer-support interventions (Embuldeniya et al., 2013; Messias et al., 2009; Whittemore et al., 2000). Emotional entanglement can occur when a client's personal or health problems become challenging for the mentor to handle, when boundaries in the mentor-mentee relationship become blurred, or when terminating the relationship leads to a sense of loss for the mentor (Embuldeniya et al., 2013; Messias et al., 2009; Whittemore et al., 2000). Some peer mentors in the current study experienced one or more of the above occurrences of emotional entanglement, especially allowing their clients' depressed mood or personal problems to carry over into their own lives. Other emotional difficulties found in the current study that have not been found in past research include the peer mentor taking client drop out personally, finding it difficult to acknowledge that the client's mood may not change within the program, and peer mentors questioning their purpose when clients appeared to be disengaged. When working with individuals who are experiencing depression and/or anxiety, client drop-out or disengagement may occur. Also, when working with this population, changes in clients' mental health may not always occur or be apparent to the mentor throughout the program. While some peer mentors in

the current study experienced new emotional difficulties as outlined above, all participants acknowledged benefits of their participation in the program that appeared to outweigh these difficulties.

The theme of *time management* cited by the peer mentors in the current study was consistent with past research. Peer mentors in one peer-led program identified minor frustrations of mentoring, including difficulties in scheduling and time commitment (Heirdsfield et al., 2008), which is consistent with the findings of the current study. However, better organization and planning skills have also emerged as themes regarding peer mentors' experiences in the past (Harmon, 2006), as well as in the current study. The Western Wellcat peer mentors identified a combination of minor frustrations, such as scheduling complications, and better organization as outcomes of their experiences; therefore, the results of the current study support the findings of other studies regarding the peer mentors' time management outcomes.

One element within the theme of *professional difficulties* found in the current research was consistent with past research. Many peer mentors found it difficult to separate a counseling relationship from a friendship, which was also found in the responses of peer mentors in a chronic disease support program (Messias et al., 2009). Other professional difficulties were challenges with maintaining confidentiality and avoiding giving advice or counseling their clients, which were not reported in the literature. This discrepancy may be due to the specific nature of the role of the peer mentors in the Western Wellcat program, since they are not trained to provide counseling and mental health is a highly sensitive subject that requires adequate confidentiality.

A common finding regarding the experiences of peer mentors involved in peer-led physical activity interventions is the improvement of the peer mentors' overall physical fitness.



The *physical fitness benefits* gained by peer mentors was a theme cited in the current study, as well as by the mentors in a peer-guided physical activity program for youth with intellectual disabilities, who reported feeling more fit and healthy following their participation in the program (Temple & Stanish, 2000). In addition, the peer mentors in the current study developed *self-awareness* as a result of their participation, which was also consistent with the findings of peer mentors who provided counseling to incoming freshman students, and gained a deepened understanding of their personal strengths and weaknesses (Harmon, 2006). Therefore, physical fitness benefits and self-awareness are two outcomes associated with peer mentoring in the Western Wellcat program that are consistent with past research.

A change in the peer mentors' perspectives relating to the specific program population has been found throughout the literature. For example, a change in peer mentors' perspectives about chronic disease emerged as an outcome of the peer mentors in one study (Harris & Larsen, 2007), while a change in peer mentors' perceptions and attitudes of individuals with intellectual disabilities was an outcome of the mentors in another (Temple & Stanish, 2011). Similar to the findings in past research, *new perspectives of mental health* were also cited by peer mentors in the current study. Therefore, new perspectives have been developed for peer mentors across a variety of mentoring programs; however, new perspectives related specifically to mental health may be a unique finding that adds to the literature. Through their experiences in the Western Wellcat program, some peer mentors learned that psychological disorders, such as depression and anxiety, do not equal weakness and that it is important to understand how others are impacted by and cope with these disorders given that they are so prevalent. The ability for individuals to expand their views about mental health may be a valuable skill learned by the peer

mentors in the Western Wellcat program, especially considering the current stigma that is attached to psychological disorders.

The most prominent theme in the current study regarding the peer mentors' experiences within the Western Wellcat program was *personal development*. While personal development did not explicitly emerge as a theme of peer mentors' experiences in past research, one element that contributes to the development of the peer mentor has been cited that overlaps with the current research: learning. For example, two previous studies found that peer mentors gained knowledge related to the program-specific content as a result of their mentoring experiences (Badura et al., 2000; Couchman, 2009), a finding that was replicated by the peer mentors in the current study. Other areas of personal development that did not emerge throughout the previous mentoring literature included the peer mentors trying new things, learning life lessons, and applying the lessons they learned to their personal lives. In the Western Wellcat program, the peer mentors attempt to support two aspects of the clients' health: their physical health and their psychological health. This unique feature of the program may facilitate the personal growth of the peer mentor because they are given the opportunity to participate in a novel experience, which stimulates new learning. Further, the peer mentors are able to experience first-hand the impact that physical activity can have on mental health, a lesson that some peer mentors claimed they have already applied to their own lives.

There were three other themes that emerged from the peer mentors in the current study that were not found in past literature regarding the outcomes of peer mentorship: *satisfaction in helping others, interpersonal awareness, and general positive experiences*. In this way, the current study adds to the existing literature by proposing that peer mentors may have the opportunity to gain satisfaction from the help they provide to others, to gain a better

understanding of others and their experiences, and to enjoy their experience as a result of participating in a peer-led program. The new themes that emerged from the experiences of the peer mentors in this study, along with the expansion of many themes that currently exist in the literature, contribute to forming a comprehensive understanding of the outcomes that may be associated with peer mentorship. The directors of peer-led programs may be better able to justify the utility of their program when they understand what the peer mentors could potentially gain from the experience. Understanding the outcomes of peer mentorship may be important when attempting to implement a new peer-led program or when recruiting students to participate as peer mentors.

### **Impact of Program Participation**

After the program ended, three themes emerged from the participants' responses of how they were affected outside of the program (see Table 5). *Professional advancement* was a theme that emerged from 62.5% of the participants, as reflected in the application of the lessons and skills they developed within the program to their current job. For example, one participant detailed his experience in the Western Wellcat program in his resume and cover letter (P6) and another spoke about the program in her job interview (P4). Other participants stated, "*it's made me a far better communicator when talking about those sorts of ailments... It allowed me to be a spokesperson for the benefits of exercise*" (P7) and "*it's really helped me from a professional standpoint*" (P8). Half of the participants also claimed that the program provided *reassurance and development of their future plans*. For example, one participant stated, "*it makes me feel reassured that this is the field I want to go into*" (P3) and another claimed, "*[the program] really fortified why I am going into sport psychology*" (P4). In addition, one participant was inspired to

Table 5

*Themes Representing how Peer Mentors were Affected Outside the Program After it Ended*

Theme (frequency)	Examples
Professional advancement (62.5%)	"I think I had an interesting bounce board to kick off my interviewing answer with because I feel very passionately about it and it really engaged my interviewers" (P4).
Reassurance of future plans (50%)	"It gave me further support or further drive for the career that I had chosen" (P7).
Personal development (37.5%)	"It's just really helped me be more aware and observant of those that are going through tough times and how to deal with that either professionally in a work setting or personally" (P8).

become involved in a program like Western Wellcat in the future: *"it made me think more seriously about doing something like that in the future"* (P5).

Finally, *personal development* emerged as a theme for 37.5% of participants regarding how they were impacted outside the program, once the program ended. Some former mentors were motivated to become more active themselves (P5), and others took away valuable lessons from the experience. For example, one participant applied the knowledge he gained from the program to his personal life:

Some of those lessons that I've learned in Wellcat have already translated to real life...

Some family members close to home have kind of been struggling with some issues

along the lines of depression. And so it's having that source of knowledge and source of experience to pull from that has been worthwhile (P7).

The literature on how peer mentors are influenced by their participation in peer-led programs after the programs have ended is lacking. While there is research on the short-term outcomes associated with the experience of peer mentoring as outlined in the previous section, the majority of the research stops there rather than assessing how the peer mentors' experiences have carried over into other aspects of their lives. The participants in the current study were peer mentors during two different years of the Western Wellcat program; therefore, at the time of participant interviews, 6 to 18 months had passed since the peer mentors' participation in the program. Thus, some of the behavior and/or attitude changes experienced by peer mentors may remain up to 6 or 18 months after participating in a peer-led program. The current study adds to the understanding of peer-mentorship in health settings by suggesting that peer mentors' experiences in peer-led programs may contribute to their long-term personal and professional development outside the bounds of the program, as well as, provide the peer mentors with reassurance or development of their future academic or career plans.

### **Suggestions for Program Improvement**

Four themes emerged in response to the fifth and final research question (see Table 6): In your opinion, how can the Western Wellcat program be improved? Half of the participants suggested improvements related to the *program structure*. For example, throughout the program the peer mentors meet with the program coordinator on a bi-weekly basis; however, it was less common for all peer mentors to meet as a group with the coordinator and director. Regarding group meetings, one participant suggested, "*having one or two extra meetings with everyone*" (P1). Further, the peer mentors are required to record the details of every session with their

Table 6

*Themes of Peer Mentors' Suggestions for Improvements to the Western Wellcat Program*

Theme (frequency)	Examples
Program structure (50%)	<p>"Making [the journal] electronic" (P2).</p> <p>"If there was one adjustment I would make, it would be that we were allowed to suggest things as mentors if they ran out of ideas or didn't know what else to do" (P6).</p>
Program expansion (50%)	<p>"Finding a way to link buddies up at the end" (P3).</p> <p>"Maybe having a little bit more of a push to have a bigger presence on campus" (P4).</p> <p>"We could have an even stronger impact on campus if we expanded more or opened it up to different majors (P4).</p> <p>"Get out of one-on-one buddy situation and get into where we have Wellcat group fitness classes" (P7).</p>
Timing/content of trainings (37.5%)	<p>"Have all trainings before the program starts. There were a few things that I think we all learned a little bit later... that would have been really useful at the beginning" (P1).</p> <p>"Role playing... real life scenarios that we might go through" (P5).</p>
Partner pairings (25%)	<p>"From my personal experience I would say... choosing mentors and matching them more efficiently with buddies" (P2).</p>

clients in a journal that is provided to them at the beginning of the program, and one participant suggested “*making [the journals] electronic*” (P2). Another participant recommended allowing mentors “*to suggest things... if [the clients] ran out of ideas or didn’t know what else to do*” (P6); this suggestion is already implemented in the program as the coordinator and director *do* encourage the mentors to provide the clients with activity ideas, and therefore, this suggestion was perhaps the result of a miscommunication in training.

Similarly, half of the participants suggested improvements related to *program expansion*. The former mentors’ ideas for program expansion were presented in many different forms, including: connecting clients at the end of the program, allowing non-majors/minors to mentor in the program, extending the duration of the program, and creating group Wellcat fitness classes.

*Timing and content of trainings* was another theme that emerged from 37.5% of the participants regarding suggestions for program improvement. For example, one participant suggested having “*all trainings before the program starts. There were a few things that I think we all learned a little bit later... that would have been really useful at the beginning*” (P1). Two other participants emphasized the utility of role playing within trainings: “*Going over those [difficult] scenarios like role playing with future buddies, to make sure everything was handled as professionally as possible*” (P8) and “*role playing... real life scenarios that we might go through*” (P5). Lastly, improving *partner pairings* based on client and mentor interests was another theme that emerged from 25% of the participants’ suggestions for program improvement. For example, for one participant, it was difficult for her to meet off-campus because she did not own a car. To this, she suggested “*including [a question about off-campus activities] in a pre-questionnaire*” (P8).

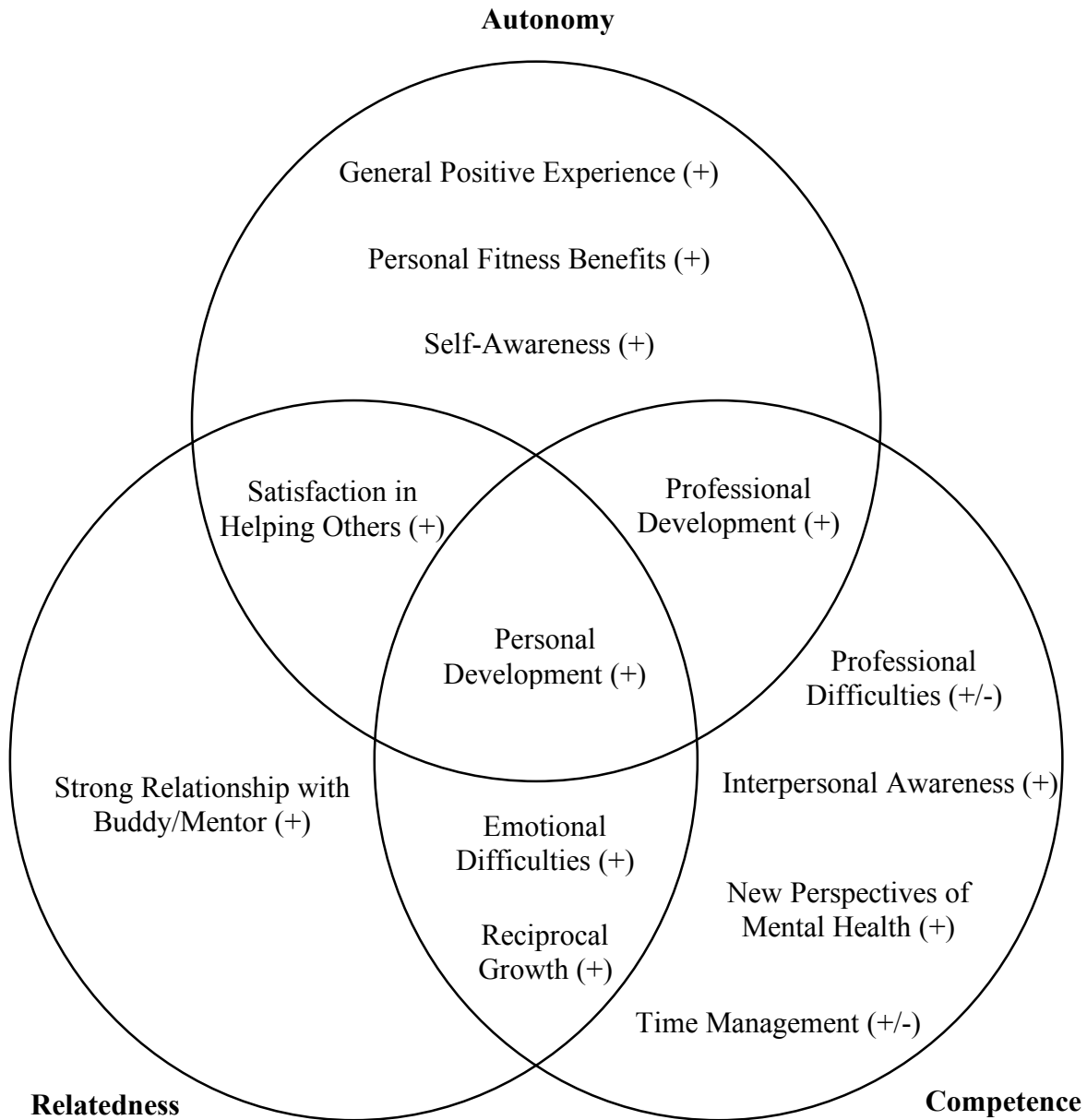
The suggestions that the peer mentors addressed in the current study for improvements of the Western Wellcat program are program-specific, therefore a comparison to the literature on this topic is unwarranted. The research question, how can the Western Wellcat program be improved, may benefit the program director, who may take these four suggestions regarding program improvement and apply them to future sessions of the Western Wellcat program. Further, the suggestions revealed by the peer mentors in the current study may also be beneficial for the directors of current or future peer-led programs, as choosing to design programs with the consideration of these suggestions may maximize the transformational processes of the mentors and mentees.

### **Application of Themes to the Self-Determination Theory**

After all themes were identified for each research question, deductive analysis was performed on all questions that specifically focused on the peer mentors' experiences within the Western Wellcat program to determine if the self-determination theory could explain the results (Ryan & Deci, 2000). The third research question, what did the peer mentor get out of their experience in the Western Wellcat program, as well as part of the fourth research question, how did participating in the program affect the peer mentor outside the program (*during* the program), were included in the deductive portion of the analysis. All 13 themes found within the peer mentors' experiences were related to at least one of the three basic psychological needs: autonomy, competence, relatedness (see Figure 1; Ryan & Deci, 2000).

The peer mentors' need for autonomy explains the peer mentors' experiences in the Western Wellcat program through the following themes: *general positive experience*, *self-awareness*, and *personal fitness benefits*. The theme *general positive experience* refers to the peer mentors' enjoyment within the program overall [e.g., "*it was a really fun time*" (P6)], and,





*Figure 1.* Representation of how each of the thirteen themes regarding peer mentors' experiences in the Western Wellcat program are related to the three basic human psychological needs according to the self-determination theory. (+) = basic psychological need satisfying, (-) = basic psychological need thwarting.

therefore, may satisfy the peer mentors' sense of autonomy since they participated in the program for the inherent satisfaction that it brings to them (Ryan & Deci, 2000). Similarly, the opportunity for personal reflection throughout the peer mentors' experiences in the Western Wellcat program allowed the mentors to become more aware of their own thoughts, behaviors, and interests; this *self-awareness* may have helped the peer mentors develop or confirm their individual values, in turn, fulfilling their autonomous need (Ryan & Deci, 2000). Further, peer mentors are only selected for the Western Wellcat program if they internally value physical activity and exercise, have adequate experience performing a variety of physical activities, and have a positive relationship with exercise. Therefore, the *personal fitness benefits* gained by the peer mentors through their time in the program may satisfy their need for autonomy because being physically active aligns with their individual values and interests (Ryan & Deci, 2000).

The peer mentors' competence need explains the peer mentors' experiences through the *professional difficulties* they experienced throughout the program, the *interpersonal awareness* and *new perspectives of mental health* that they gained, and the lessons they learned in *time management*. Several peer mentors found it difficult to maintain and abide by the guidelines of their role as a peer mentor within the Western Wellcat program. For example, many peer mentors found it difficult to maintain the confidentiality of both themselves as a peer mentor in the program, as well as the confidentiality of their buddies as clients in the program. Therefore, the peer mentors' competence need may have been thwarted early in the program as they were still learning how to navigate some of these *professional difficulties* (Ryan & Deci, 2000). However, after consulting with the program coordinator and practicing ways to keep personal and client confidentiality, some peer mentors overcame some of these difficulties and, therefore, fulfilled their competence need (Ryan & Deci, 2000). The peer mentors also gained

*interpersonal awareness*, as evidenced by the change or reinforcement of their perceptions of others through their experiences in the program. This newfound understanding of others may satisfy the peer mentors' need to be effective in dealing with their environment, and, therefore, their need for competence (Ryan & Deci, 2000).

As a result of the Western Wellcat program, the peer mentors gained *new perspectives of mental health* and learned how others cope with mental disorders. These new perspectives gained by the peer mentors may satisfy their competence need through their increased ability in effectively dealing with their environment and those around them (Ryan & Deci, 2000). In addition, the peer mentors' competence need may have been fulfilled through the lessons they learned in organization or difficulties they experienced in *time management*. For example, to cope with the added responsibility of being a part of the Western Wellcat program, some peer mentors learned how to be more organized by keeping track of their meeting times with their clients and other commitments in a planner throughout the program. For the peer mentors who learned lessons in organization, the fulfillment of their competence need appeared to explain this experience in the Western Wellcat program (Ryan & Deci, 2000). Other peer mentors, however, were not as successful in managing their time and experienced difficulties scheduling with their clients due to the many commitments they were already a part of (e.g., athletics, classes, etc.). It is unclear whether or not some of the peer mentors were able to overcome these time constraints and learn how to use their time more efficiently; therefore, the peer mentors' competence need may or may not have been satisfied by the Western Wellcat program (Ryan & Deci, 2000).

The peer mentors' need for relatedness, or their need to feel belongingness or connectedness with others (Ryan & Deci, 2000), may have explained their experiences in the Western Wellcat program through the *strong relationships* they formed with others throughout

the program. Several peer mentors mentioned that they developed a strong connection with the clients that they worked with, and some spoke about the supportive, close relationships they formed with the other peer mentors in the program as well. These social connections would potentially fulfill their relatedness need (Ryan & Deci, 2000). Another theme, *satisfaction in helping others*, may satisfy the peer mentors' need for autonomy, as well as their need for relatedness. Several peer mentors claimed that helping others throughout the program was satisfying for them or "felt good", demonstrating that the helping nature of the program may have reflected the peer mentors' personal values, thus potentially satisfying their basic need of autonomy (Ryan & Deci, 2000). The satisfaction that the peer mentors experienced as a result of helping their client appeared to be fueled in part by the strong connection that had formed; this sense of connection between the peer mentor and their client may also potentially fulfill the peer mentors' relatedness need (Ryan & Deci, 2000).

The peer mentors' needs for autonomy and competence appear to have explained their experience in the program through their *professional development* (Ryan & Deci, 2000). The peer mentors gained experience and learned professional skills related to their academic and/or career interests as a result of their experience in the Western Wellcat program. In this way, the peer mentors' competency need may have been fulfilled through learning certain professional skills (e.g., communication, confidentiality, flexibility), while their autonomy need may have also been fulfilled through furthering their knowledge in an academic or professional area that aligns with their personal interests (Ryan & Deci, 2000).

Two themes regarding the peer mentors' experiences within the Western Wellcat program may potentially satisfy both their competence and relatedness needs: *emotional difficulties* and *reciprocal growth* (Ryan & Deci, 2000). Similar to the professional difficulties

that the peer mentors experienced, several peer mentors also experienced *emotional difficulties*, suggesting that the experience working with a peer with depression and/or anxiety was emotionally difficult for them. However, as with some of the professional difficulties, the peer mentors overcame these emotional difficulties, and therefore potentially fulfilled their competence need by handling these challenges successfully (Ryan & Deci, 2000). For example, one peer mentor discussed how much easier it was to “set aside” the emotional stress she sometimes experienced after working with clients later in the program compared to at the beginning of the program (e.g., “*by spring I could deal with [the emotional stress] much better... Having seen buddies that went through it positively, it was easier to kind of set that aside*”). The emotional difficulties that the peer mentors experienced may not have surfaced had they not shared a strong, meaningful connection with their client and cared about their clients well-being. For example, one mentor stated: “*I felt a little sad because... I didn’t want to leave them yet. I wanted them to get better because you develop care for them, you know, an interest in their well-being.*” In this way, the emotional difficulties some peer mentors experienced may also suggest that their relatedness need is being satisfied (Ryan & Deci, 2000). *Reciprocal growth*, or the peer mentors’ belief that they learned or grew as much as their clients, may satisfy the peer mentors’ competence need because they were provided with a structured environment that aided in their development (Ryan & Deci, 2000). Many mentors ended up learning from their clients and finding it therapeutic to speak with them, just as the client learned and felt supported by the mentor, signifying a strong connection between the two peers. Therefore, the peer mentors’ relatedness need may have also been satisfied through their reciprocal growth with their clients (Ryan & Deci, 2000). In this way, the peer mentors’ competence and relatedness needs may have

explained their experiences in the Western Wellcat program through their *emotional difficulties* and *reciprocal growth*.

There was one theme from the peer mentors' experiences that may fulfill all three of the mentors' basic psychological needs: *personal development*. Several peer mentors signified that they learned things throughout the program, whether that be learning new physical activities, learning how to relate to others, or learning personal things about themselves. The peer mentors' accomplishment in acquiring this new knowledge and mastering these new skills may fulfill their need for competence (Ryan & Deci, 2000). Some peer mentors also learned how to be open and vulnerable with others, empower others, and understand others' situations as part of this theme of personal development. The above lessons may all contribute to the peer mentors' ability to relate to and connect with others, therefore potentially fulfilling their need for relatedness (Ryan & Deci, 2000). Finally, most of the peer mentors joined the Western Wellcat program as an exercise buddy because the program aligned with their own values regarding health and wellness, and through their experiences in the program, they developed in a way that aligns with their personal values and interests, therefore, potentially satisfying their need for autonomy (Ryan & Deci, 2000). Therefore, the peer mentors three basic psychological needs according to the self-determination theory explained their experiences in the Western Wellcat program through their *personal development* (Ryan & Deci, 2000).

## **Summary**

In this study, several themes were discovered that describe the overall experiences of the peer mentors in the Western Wellcat program. The researcher found that Western Wellcat peer mentors had a variety of motives for enrolling in the program. These motives include the desire to help others, to gain experience in the field, to earn college credit, to participate in a program

that aligns with their personal philosophies of wellness, and the encouragement of others. The researcher also found that the peer mentors' expected the program to be a difficult experience for themselves and their clients, to help others, apply what they had learned in prior academic courses, and learn new things throughout the experience. The peer mentors suggested that the majority of their expectations were fulfilled as they reflected back on their experience in the Western Wellcat program.

The researcher discovered thirteen themes regarding the outcomes associated with the peer mentors' experiences in the Western Wellcat program, which were related to the peer mentors' personal growth and well-being, interpersonal awareness, and professional development. Whereas some peer mentors' competence need may have been thwarted through the professional difficulties they experienced or their challenges in time management, other elements of the peer mentors' experiences in the program fulfilled their need for competence; thus, all three of the peer mentors' basic psychological needs appear to have been fulfilled (either fully or partially). Therefore, the self-determination theory explained the experiences of the peer mentors in the Western Wellcat program. The peer mentors were also influenced by their experiences in the Western Wellcat program after the program ended in ways related to their personal and professional development, which indicates the potential long-term need fulfillment and overall development of the peer mentors as a result of the program. Therefore, the self-determination theory explained the experiences of the peer mentors and the basic psychological needs appear to be an effective conceptual model of outlining lasting effects of mentoring in a physical activity for mental health program. Finally, the peer mentors specified suggestions for the improvement of the Western Wellcat program that program directors may choose to implement in the design of current or future peer-led programs. As this is the first study to

explore the experiences of the peer mentors in a peer-led physical activity program for mental health, all of the themes that emerged from the participants' responses warrant further research to gain a more thorough understanding of the mentors' experiences.



## Chapter V

### Summary, Conclusion, and Recommendations

#### Summary

The purpose of this study was to qualitatively evaluate the experiences of peer mentors who were involved in a peer-led physical activity program called Western Wellcat. The research questions that guided this study included: (1) What motivated the peer mentor to sign up for the Western Wellcat program as an exercise buddy? (2) What expectations did the peer mentor have for the Western Wellcat program? (3) What did the peer mentor get out of their experience in the Western Wellcat program? (4) How did participating in the Western Wellcat program affect the peer mentor? and (5) How can the Western Wellcat program be improved? The research questions were answered by examining the themes that emerged from the participants' responses within semi-structured interviews.

The first research question, what motivated the peer mentor to sign up for the Western Wellcat program, was answered by five emerging themes: *help others*, *gain experience in the field*, *philosophy of program*, *fulfill college credit*, and *encouragement from others*. The emerging themes indicate that the peer mentors were motivated by a combination of altruistic and egotistic motives, which is consistent with past literature on peer mentorship (e.g., Harris & Larsen, 2007; Klein & Sondag, 2015; Messias et al., 2009; Temple & Stanish, 2011). Two motivation themes, *philosophy of the program* and *encouragement from others*, add to the literature on peer mentor motivation as these motives have not been cited in past research. In addition to peer mentor motivation, four themes emerged from the participants' interviews that answered what expectations the peer mentor had for the Western Wellcat program: *difficult experience for the mentor/client*, *help others*, *apply knowledge*, and *learn*. The expectations of

individuals who are about to begin mentoring in a peer-led program have not yet been studied, therefore the current findings close this gap in the literature.

In response to the third research question, what did the peer mentor get out of their experience in the program, 13 themes were discovered. All experience themes were related to at least one of the three basic human psychological needs: autonomy, competence, and relatedness (Ryan & Deci, 2000). The peer mentors' need for autonomy may have been satisfied by six themes that emerged from the peer mentors' experiences: *general positive experience, personal fitness benefits, self-awareness, satisfaction in helping others, professional development, and personal development*. Five experience themes potentially fulfilled the peer mentors' need for relatedness: *strong relationship with buddy/mentor, satisfaction in helping others, emotional difficulties, reciprocal growth, and personal development*. Finally, eight themes regarding the peer mentors' experiences may have been related to their competence need: *professional difficulties, interpersonal awareness, new perspectives of mental health, time management, professional development, emotional difficulties, reciprocal growth, and personal development*. Therefore, the self-determination theory appeared to have explained the peer mentors' experiences in the Western Wellcat program. Many of the emerging themes regarding the experiences of peer mentors in the current study have been discussed within past literature on peer mentorship (e.g., Badura et al., 2000; Couchman, 2009; Embuldeniya et al., 2013; Harmon, 2006; Harris & Larsen, 2007; Heirdsfield et al., 2008; Messias et al., 2009; Temple & Stanish, 2011; Whittemore et al., 2000). However, three new themes that were discovered in the current study add to the existing literature: *satisfaction in helping others, interpersonal awareness, and general positive experiences*. Further, the experience of peer mentorship has yet to be studied by way of the self-determination theory. The current study is the first study to demonstrate that

participating in a peer-led program as a peer mentor may satisfy the individual's three basic human psychological needs.

The fourth research question, regarding how participating in the Western Wellcat program affected the peer mentor outside the program, led to three emerging themes: *professional advancement, reassurance of future plans, and personal development*. The peer mentors in the current study reported that participating in the Western Wellcat program carried over into other areas of their lives. For example, many Western Wellcat peer mentors applied the lessons and skills they developed within the program to their current profession or situations within their personal lives. Also, participating in the Western Wellcat program provided reassurance to some peer mentors regarding their future career or academic plans. The literature on the lasting impacts of participating as peer mentors in peer-led programs is lacking. The current study lends to the understanding of how other aspects of peer mentors' lives may be influenced once a program has ended.

The last research question, how can the Western Wellcat program be improved, was answered by four emerging themes: *program structure, program expansion, timing/content of trainings, and partner pairings*. The results of this final research question may guide future changes to the peer-led physical activity programs for mental health, as well as inform program directors of how to design other peer-led interventions effectively.

## **Conclusion**

The outcomes of mentees' experiences in peer-led programs have been studied extensively (e.g., Sallis et al., 1999; Posavac & Kattapong, 1999; Webel et al., 2010), however, little attention has been paid to the peer mentors. While some outcomes of serving as a peer mentor have been discovered, the current researcher was the first to explore peer mentors'

experiences within a peer-guided physical activity program for mental health. The findings of the current study extend the research on the motivations, expectations, outcomes, and lasting impacts that may be associated with peer mentoring in health settings. The researcher found that the Western Wellcat program may be designed in a way that not only satisfies the three basic human psychological needs of the mentees, but also of the peer mentors. Psychological need satisfaction has been associated with the most volitional and high quality forms of motivation and engagement for activities, as well as improved general well-being (Ryan & Deci, 2000). In this way, participating in the Western Wellcat program as a peer mentor may serve as a buffer for the mental health of the peer mentors.

The Western Wellcat program is currently in place as an internship opportunity for students who are majoring or minoring in kinesiology at a mid-size, northwest university. The current researcher found that the peer mentors, or interns, in the Western Wellcat program grow personally, interpersonally, and professionally through their participation in the program. The peer mentors may experience additional emotional stress from working with depressed and/or anxious individuals, however, the benefits that come from their experiences in the program appear to have outweighed this potential downfall. These findings, along with the improvements found in the mentees' physical activity levels and symptoms of depression (Keeler, 2015), demonstrate that the Western Wellcat program could be a profoundly beneficial addition to college campuses. Peer-led physical activity programs that aim to address a variety of mental health issues, such as the Western Wellcat program, come with limited costs and high rewards. The Western Wellcat program utilizes undergraduate students who participate for college credit, requires little training, and all the resources needed to facilitate the program are readily available on most college campuses (e.g., experienced faculty/staff to teach training content, areas to

engage in various physical activities, Student Health Center/Counseling Center). Whereas many internship opportunities on college campuses involve shadowing an experienced professional, the Western Wellcat program is unique in that the interns are not just watching or observing, they are doing. The interns get to physically and emotionally *experience* the program alongside their mentees, and therefore, they have the opportunity to immediately apply the knowledge and skills they learn in trainings to actual experiences.

The results of the current study suggest that peer-led programs in college settings, such as the Western Wellcat program, may contribute to the personal, interpersonal, and professional growth of the students who participate as peer mentors. Further, peer mentors who participate in peer-led programs that are structured based on the self-determination theory may also fulfill both the clients and the mentors' three basic human psychological needs through their participation. In this way, the current study may inform professionals in other mentorship programs of how to design peer mentored programs in a way that contributes to the mentors' overall growth, and fulfills the mentors' needs for autonomy, competence, and relatedness, thereby enhancing their general well-being (Ryan & Deci, 2000).

### **Recommendations**

As interventions that utilize peer mentors to aid in altering the health behaviors and attitudes of individuals continue to grow, more qualitative and quantitative research that explores the experiences of the peer mentors in these interventions is warranted. The present study was the first to examine the experiences of peer mentors in a peer-led physical activity program for mental health. More research should be conducted on the experiences of Western Wellcat peer mentors, as well as the experiences of peer mentors across a variety of mentoring settings. The present study discovered many new themes related to the motivations, expectations, outcomes,

and lasting impacts of acting as a peer mentor in a peer-led program, therefore, more research in these new concepts is required. The researcher was also the first to apply the three basic human psychological needs of the self-determination theory to the experiences of peer mentors (Ryan & Deci, 2000). Researchers should explore the need satisfaction of other peer mentors involved in physical activity programs for mental health, as well as the need satisfaction of peer mentors in other peer-led programs. Research in the area of need satisfaction may inform mentorship program professionals of the types of experiences that lead to the fulfillment of the three basic human psychological needs of the peer mentors. Further, the directors of future programs should focus on designing peer-led programs in a way that minimizes the peer mentors' thwarted needs. For example, to alleviate the difficulties the peer mentors may face in time management, future program directors could incorporate specific training for planning and organization. In addition, to address professional difficulties, future program directors could incorporate more role playing into their training to give peer mentors the opportunity to practice difficult interactions with clients. Role playing scenarios should focus on how to maintain confidentiality or how to keep the relationship between the mentor and mentee professional.

Future researchers should also explore which part(s) of the Western Wellcat program, and potentially other peer-led programs, cause the outcomes that appear to be associated with peer mentorship. Researchers should continue to gain a deeper understanding of peer mentorship, as peer mentoring appears to not only be an effective method for the behavior and attitude change of mentees, but also for the personal, interpersonal, and professional development of peer mentors.

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Appendix A

**Informed Consent Form**

Due to your past involvement as an exercise buddy in the Western Wellcat program at Western Washington University, you have been selected as a potential participant in a Master’s thesis research project exploring your experience in the program. The purpose of this research project is to qualitatively evaluate the experiences of exercise buddies (i.e., peer mentors) who were involved in the Western Wellcat program through semi-structured interviews. The effects of participating as a client in the Western Wellcat program have been found (Keeler, 2015), however, there is no research that explores the influence that the program potentially had on the peer mentors. The results of this study will advance our understanding of the influence that participation as a peer mentor in peer led physical activity programs has on the peer mentor.

**I understand that:**

- 1) This research study will involve responding to several open-ended questions via telephone about my experience in the Western Wellcat program and that my responses will be audio recorded and later transcribed by the researcher. All audio recordings will be deleted after transcription. My participation will involve approximately 15-30 minutes of my time.
- 2) There are no anticipated risks or discomfort associated with my participation.
- 3) My participation is completely voluntary; I may choose not to answer certain questions or withdraw my consent and discontinue participation without penalty.
- 4) All information is confidential. My signed consent form will be kept in a locked cabinet separate from any documentation of interview responses, including audio recordings and transcriptions. My name will not be associated with any of my responses at any time.
- 5) My signature on this form does not waive my legal rights of protection.

Any questions about this research project or your participation may be directed to the primary researcher, Taylor Leenstra, at leenstt@wwu.edu or 360-306-0411. The responsible faculty member associated with this project is Dr. Linda Keeler, and may be contacted at linda.keeler@wwu.edu or 360-650-3514. If you have any questions about your rights as a research subject, please contact Janai Symons, Research Compliance Officer (RCO), at 360-650-3082. If during or after participation in this study you suffer from any adverse effects as a result of participation, please notify the primary researcher or the RCO.

**My signature below signifies that I am at least 18 years of age, I have read the above description, and I agree to participate in this study:**

\_\_\_\_\_  
Participant’s Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Participant’s Printed Name

Note: Please sign both copies of the form and retain the copy titled “Participant”

## Appendix B

### Category Template Based on the Basic Human Psychological Needs of the Self-Determination Theory

Category 1		
Label	Definition	Description
Autonomy	Self-determined; internal perceived locus of control (Ryan & Deci, 2000).	Feelings or mentions of independence, freedom from external control or influence, or self-governed decisions or behavior. Alignment with individual values and interests (integration).
Category 2		
Label	Definition	Description
Competence	Self-efficacy (Ryan & Deci, 2000); the ability to do something successfully or efficiently.	Feelings or mentions of accomplishment, adequacy, or mastery of a certain task, or confidence in ability. Structured environment for development.
Category 3		
Label	Definition	Description
Relatedness	The need to feel belongingness or connectedness with others (Ryan & Deci, 2000).	Feelings or mentions of a close relationship with others, a sense of being connected to others, or being able to contribute.
Category 4		
Label	Definition	Description
Other	Any code label that does not represent categories 1-3 listed above.	N/A



Appendix C  
Interview Script

1. What motivated you to sign up for the Western Wellcat program as an exercise buddy?
  - Why was this a motivating factor for you?
  - What led you to that decision?
  - What do you mean by \_\_\_\_\_?
  - Was there any additional motivation for your participation?
2. What kinds of expectations did you have for the program?
  - How did the program meet your expectation(s)?
    - How did this make you feel?
  - Why did the program not meet your expectation(s)?
    - How did this make you feel?
  - What do you mean by \_\_\_\_\_?
  - Why did you expect \_\_\_\_\_?
3. What, if anything, did you get out of the experience?
  - Why did your experience lead to \_\_\_\_\_?
  - How did \_\_\_\_\_ come about?
  - How did that make you feel?
  - What other things did you take away from your experience?
4. How did being an exercise buddy in the Western Wellcat program affect you?
  - How did \_\_\_\_\_ come about?
  - What prompted that/those change(s)?

- Are there any other areas of your life that were affected by your participation in the program? If so, how?
  - How does this make you feel?
5. Tell me a little more about your relationship with your buddy(s).
- What did you learn, if anything, from them?
    - How did this come about?
    - How does this make you feel?
  - Why was your relationship \_\_\_\_\_?
6. How can the Western Wellcat program be improved?
- What would have improved your experience in the program?
  - Why would \_\_\_\_\_ make the program better?
  - What other suggestions do you have for improvement?

**WESTERN WASHINGTON UNIVERSITY  
Office of Research and Sponsored Programs**

**MEMORANDUM**

**TO:** Taylor Leenstra, Health and Human Development  
**FROM:** Janai Symons, Office of Research and Sponsored Programs *KJRCJS*  
**DATE:** 12/06/2016  
**SUBJECT:** Institutional Review Board– Exempt Research Approval

Thank you for submitting a research protocol regarding your human subject research EX17-027 “An evaluation of the experiences of peer mentors involved in the Western Wellcat program” for review by the Institutional Review Board (IRB).

*Approval:* The IRB has reviewed the materials you submitted and found the project described falls into Category #2. Although the research qualifies for exempt status, the investigators still have a responsibility to protect the rights and welfare of their subjects, and are expected to conduct their research in accordance with the ethical principles of Justice, Beneficence, and Respect for Persons, as described in the Belmont Report, as well as with state and local institutional policy. All students and investigators collecting or analyzing data must be qualified and appropriately trained in research methods and responsible conduct of research.

*Determination Period:* An exempt determination is valid for five years from the date of the determination, as long as the nature of the research activity remains the same. If the involvement of human subjects changes over the course of the study in a way that would increase risks, please submit a revised protocol.

*Problems:* If issues should arise during the conduct of the research, such as unanticipated problems that may increase the risk to the human subjects or change the category of review, notify the Research Compliance Officer promptly. Any complaints from subjects pertaining to the risk and benefits of the research must be reported to the Research Compliance Officer.

If you have any questions, feel free to email me at [janai.symons@wwu.edu](mailto:janai.symons@wwu.edu).

## Appendix E

### Pattern Coding

**Key:**

- The bolded headings represent the **themes** discovered for each research question
- The text segments listed beneath the bolded theme headings are the code labels derived from participant's interview transcripts that represent the corresponding theme
- The participant whom the code label was derived from is represented by the number before each code label (e.g., "2. Serve others" designates that the code label "serve others" came from Participant 2)
- The numbers in parentheses to the left of each theme represent the number of participants who had a code label that was represented by that theme out of the eight total participants (e.g., 6 out of 8 participants [6/8] = 75% of participant responses reflected that theme)

Research Question #1:

*What motivated you to sign up for the Western Wellcat program as an exercise buddy?*

**Help others (6/8 = 75%)**

2. Fulfill passion for helping others
2. Serve others
3. Provide empathy to others
3. To help others
3. To give back to others
5. To positively impact others
6. To help others
6. Fulfill "helper" role
7. Help out community
7. Help people with depression and/or anxiety
8. Motivate people with depression and/or anxiety
8. Confidence in ability to fulfill role (support others)

**Gain experience in field (5/8 = 62.5%)**

1. Gain experience in the sport and exercise psychology field
3. Live out the exercise psychology research
6. Experience something related to field of study
7. Participate in active form of research
7. Work with students with depression and/or anxiety
8. Work with people

**Philosophy of program (4/8 = 50%)**

2. Fulfill passion for physical activity
2. Enjoy learning about sport and exercise psychology
4. Agree with the philosophy of the program
4. Personal belief that physical activity benefits mental health
5. Inspired by the program
8. Be a part of a positive program

**Fulfill college credit (3/8 = 37.5%)**

2. Fulfill field experience credits
6. Fulfill internship credits
8. Fulfill internship credit

**Encouragement from others (2/8 = 25%)**

3. Encouragement from advisor
3. Peer motivation
3. Persuasion from friends
7. Encouragement from program director

Research Question #2:

*What kinds of expectations did you have for the program?*

**Difficult experience for mentor/client (4/8 = 50%)**

1. Difficult partner dynamic
1. Awkward partner dynamic
5. Difficulties in connecting with clients
5. Difficulties in maintaining confidentiality
5. Program may not help clients as much as hoped
5. Apprehensive clients
5. Timid clients
5. Clients to be anxious about who they are paired with
5. Program may be difficult for clients
5. Acknowledge program is difficult for clients
6. Curiosity about partner dynamic
6. May be personality conflicts
8. A challenging experience
8. An emotionally challenging experience
8. Challenges in coordinating meeting times
8. Engage in some exercises that may not personally enjoy

**Help others (4/8 = 50%)**

1. To help someone
2. Help individuals with exercise
2. Help others
2. Help everyone

- 3. Help people
- 3. All clients get better/improve
- 3. Clients exercise extra days on own towards end of program
- 3. Clients symptoms decrease during/after exercise
- 3. Clients rely less on buddy towards end of program
- 3. Client self-direct behavior towards end of program
- 7. Impact someone's life

**Apply knowledge** (3/8 = 37.5%)

- 3. Apply sport psychology knowledge
- 3. Apply Transtheoretical model
- 3. Apply motivational interviewing skills
- 3. Do counseling work
- 4. Test own knowledge of mental health
- 4. Test own knowledge of exercise
- 4. Apply knowledge of mental health and exercise
- 4. Give instructions/personal training
- 8. Pay attention to clients' body language

**To learn** (2/8 = 25%)

- 7. Learn about self
- 8. Learn about confidentiality policies
- 8. Learn how to react in challenging situations
- 8. A professional experience

Research Question #3:

*What did you get out of the experience?*

**Strong relationships with buddy/mentor**

- 1. Friendships with clients rather than obligation
- 1. No awkward silences
- 1. Friendships with peer mentors
- 1. Get along with other peer mentors
- 1. Peer mentors help each other
- 1. Peer mentors provide emotional help
- 1. Peer mentors help each other
- 1. Friendships with peer mentors
- 1. Friendships with peer mentors
- 1. Universal experience for peer mentors
- 1. Universal experience for peer mentors
- 1. Learned content from clients' interests
- 3. Good relationships with all buddies
- 3. Got along with all buddies
- 3. Hard to end relationships
- 3. Sad when buddies did not see own improvement

- 3. Nerve racking to end relationships
- 3. Sad to leave buddies
- 3. Developed care for buddies
- 3. Felt like unfinished business at end
- 3. Hard to see program did not help some
- 3. Interest in buddies well-being
- 3. Did not want to stop helping buddy
- 3. Met new people
- 3. Friendships with other peer mentors
- 3. Learned about buddies' classes
- 4. Got along well with all buddies
- 4. Empowering to share connection with buddies
- 5. Exercising with buddy was highlight of day
- 5. Inspired by adventurousness of client
- 5. Inspired by kindness of client
- 6. Two equals rather than mentor and student
- 6. Connected with buddy through common interests
- 6. Sessions always seemed worthwhile
- 7. Learned about client interests

**Personal fitness benefits**

- 1. Physical activity with client matched personal choice
- 1. Never exercised with clients back-to-back
- 2. Personal fitness improvements
- 2. Increased volume of exercise
- 2. Became more fit because of program
- 3. Met personal fitness goals
- 3. Exercised more in program
- 3. Still do physical activity suggested by buddy

**Personal development**

- 2. Improvements in own life
- 2. Opportunity to work on personal skills
- 2. Opportunity to do something never done before
- 2. Learn exercises originally unfamiliar with
- 2. Opportunity to exercise out of comfort zone
- 3. Learned things about self
- 3. Tried new activities
- 3. Pushed own physical activity boundaries
- 3. Tried new equipment in weight room
- 3. Found enjoyment in new exercises
- 3. Found more creativity in own physical activity
- 3. Feels good to participate in program that helps self
- 3. Learned importance of listening
- 4. Strengthened self
- 4. Strengthened outlook on life

- 4. Apply tactics used with buddies on self
- 4. Learned importance of being open with others
- 4. Learned vulnerability can make us feel strong
- 4. Empowering experience
- 4. Learned importance of understanding others
- 4. Learned importance of empowering others
- 5. Helped ability to relate to others
- 5. Helped comfortability with going with the flow
- 5. Learned a lot from program
- 5. Realized utility of doing simple physical activities
- 6. Learned how to reflect on experiences
- 7. Novel experience
- 7. Pushed to try new activities
- 7. Learned how to empathize
- 7. Applied skills learned to personal issues
- 7. Lessons/skills learned are invaluable
- 7. Utilized techniques to avoid taking on clients' issues
- 7. Learned to be open to others' interests
- 7. Learned to be more inclusive in certain activities
- 7. Felt more well-rounded as a result of program
- 8. Personal growing experience
- 8. Learned importance of professional relationships
- 8. Personal growing experience
- 8. Personal growth

### **Self-awareness**

- 1. Awareness of own self-talk
- 1. Awareness of own behavior
- 1. Awareness of own statements
- 1. Opportunity to self-reflect
- 3. Fueled understanding of self
- 3. Learned about personal physical activity interests
- 3. Realized prefer to go to gym with buddy
- 3. Realized importance of having gym buddy
- 3. Became interested in physical activities buddies liked
- 3. Relaxing to realize need for physical activity buddy
- 4. Allowed for personal reflection

### **Professional development**

- 2. Learned how to adapt to situations
- 2. Learned how to communicate professionally
- 2. Some interactions very professional (to the point)
- 2. Learned how to engage in productive small talk
- 2. Skills learned applicable to any job/scenario
- 2. Helpful to practice interpersonal skills in real life setting
- 2. Learned to be flexible in scheduling



- 2. Interactions with people from different backgrounds/ethnicities
- 3. Gained experience in health program
- 5. Knowledge of how to be supportive transferred to other jobs/life
- 5. Learned active listening skills
- 5. Apply knowledge learned at WWU
- 5. Culmination of all education
- 6. Put knowledge into practice
- 6. Gained experience in future career
- 7. Lessons learned translated into real life
- 7. Client dependent on punctuality/professionalism
- 7. Practical experience for future career
- 7. Gained practical experience that applies to real life
- 7. Every situation encountered in program taught practical knowledge
- 8. Learned how to uphold HIPPA policies
- 8. Skills gained transfer to current job
- 8. Learned importance of maintaining confidentiality
- 8. Helped with patient interaction in current job
- 8. Learned how to interact with people with anxiety

### **Interpersonal awareness**

- 1. Learned people's moods are variable depending on context
- 1. Understanding of how extraneous factors affect behavior
- 1. Learned to be aware of how external factors affect behavior
- 2. Learned interpersonal skills
- 3. Important to meet buddy at their level emotionally
- 3. Learned everyone likes different physical activities
- 3. Reinforced idea that people need others to listen
- 3. Learned importance of meeting buddies at their level
- 3. Learned importance of reflecting buddies' mood
- 4. Learned can't judge book by its cover
- 4. Learned can't judge a book by its cover
- 4. Put things into perspective
- 6. Learned to not judge a book by its cover
- 6. Eye opening to hear others' stories
- 7. Learned to not judge a book by its cover
- 8. Helped with reading others' body language
- 8. Learned importance of finding comfortable workout setting for buddy
- 8. Learned buddies respond well to positivity
- 8. Learned importance of showing you clients you care

### **New perspectives of mental health**

- 3. Learned how different people deal with depression and anxiety
- 3. Learned new perspectives
- 4. Learned new perspectives of mental health
- 4. Learned importance of understanding others' views of mental health
- 4. Opened up perspective of others' experiences

- 4. Gained new perspective of mental health
- 4. Lessons learned transferred to everyday experiences
- 4. Learned mental health problems do not equal weakness
- 4. Learned importance of not disregarding people due to mental health
- 7. Changed outlook on mental disorders
- 7. Provided insight into what client is going through
- 7. Eye opening experience
- 7. Powerful realization of impact of depression

**Emotional difficulties of program**

- 1. Emotionally challenging sessions
- 1. Difficult to help others
- 2. Took client dropout personally
- 2. Felt uncomfortable when clients opened up
- 3. Hard to handle internally
- 3. Hard to see others sad
- 3. Difficult to acknowledge buddies' mood may not change
- 3. Some challenging buddies
- 3. Challenging to work with disengaged buddies
- 6. Clients' problems on mind a lot
- 6. Difficult to tune out clients' problems
- 6. Questioned purpose when clients didn't seem engaged
- 6. Thinking about clients' problems was minimally distracting
- 7. Clients' issues sometimes brought mentor down
- 8. Emotionally difficult at beginning
- 8. Emotionally difficult
- 8. Emotionally stressful
- 8. Stressful to work with people with depression and anxiety
- 8. Sometimes felt depressed after working with buddies
- 8. Difficult to spend a lot of time with depressed/anxious others

**Satisfaction in helping others**

- 1. Nice to support client emotionally
- 1. Nice to know exercise and companionship can make a difference
- 2. Happy to help client build confidence
- 2. Made a difference
- 2. Proud to be in program
- 2. Felt good to have clients' trust
- 3. Nice to be emotional outlet
- 3. Nice to be there for others
- 3. Nice to be trusted
- 3. Saw growth in buddies
- 4. Emotional outlet for buddies
- 4. Felt good to help buddies open up
- 5. Being accountable for being there for others
- 5. Realized power of program

- 6. Felt good to make a difference in clients' lives
- 7. Felt good to be trusted

### **Reciprocal growth**

- 3. Mutual growth
- 4. Learned from buddies
- 5. Learned as much from program as buddies did
- 6. Mutual/equal experience
- 6. Therapeutic for mentor to talk with client as well
- 7. Program pushes both client and mentor out of comfort zone

### **Professional difficulties of program**

- 1. Difficult to not give advice/counsel
- 1. Confidentiality during campus encounters
- 1. Romantic interest from client
- 1. Clients interested in relationship outside of program
- 1. Did not feel romantic chemistry/tension from client
- 2. Learned it's hard to say "no"
- 2. Hard to say "no" to unsafe exercises
- 2. Feared saying "no" to unsafe exercises would prevent client from pursuing exercise
- 2. Feared client would never do declined workout in future
- 2. Uncomfortable about being incompetent at certain activities
- 2. Worried about being incompetent at certain activities
- 3. Difficult to keep confidentiality
- 3. Difficult to keep clients' privacy
- 4. Challenge to find balance between professional and comfortable relationship
- 4. Challenge to not get too friendly
- 5. Challenging to maintain confidentiality
- 6. Frustrating when clients always picked same activity
- 6. Felt wasn't utilized as well as could have been if trying new activities
- 7. Fun challenge to maintain role of workout buddy vs. instructor
- 7. Required balance between buddy and instructor
- 8. Awkward to see buddy outside of program
- 8. Awkward if buddy contacted after program on social media
- 8. Questioned reasons for being in program when with awkward buddy
- 8. Clients pursuing friendship after program was awkward
- 8. Conversations got confusing when working with several clients

### **General positive experience**

- 3. Good experience overall
- 3. Enjoyed learning how to be social during exercise
- 4. Cool to be a part of program
- 5. Highlight of kinesiology program
- 5. Meaningful to apply knowledge of field
- 5. Lucky to be a part of program
- 5. "So much more than an internship"

- 5. Beneficial experience
- 5. Enjoyed doing novel recreational activities
- 5. Enjoyed shared activity experience
- 6. Program was highlight of college
- 6. Fun experience
- 6. Interested in being more involved with program
- 8. Fun experience

**Time management**

- 3. Relief on schedule to combine own exercise with program
- 3. Frustrating when buddy canceled
- 3. Lose study time if canceled last minute
- 1. Easy to schedule meetings
- 2. Program time consuming
- 2. Became more organized
- 2. Adapt schedule based on weather
- 5. Time management was challenge
- 5. Dropped less important tasks to meet with buddy
- 5. Difficult to schedule consistent meetings
- 6. Taxing on time
- 6. Extra responsibility
- 6. Thought about program a lot
- 6. Learned it's difficult to schedule
- 8. Difficult to find energy/time for own exercise

Research Question #4:

*How were you affected outside of the program after the program ended?*

**Reassurance of future plans**

- 3. Reassurance of field of study
- 3. Reassurance of future success in field
- 3. Reassurance of field selection that plays on personal strengths
- 3. Chance to see personality in action
- 4. Fortified interest in sport psych
- 4. Confidence in real life purpose of education
- 5. Guided future career plans
- 5. Sparked interest in implementing similar program
- 5. Interest in implementing similar program in outdoor setting
- 5. Exposed career possibilities relevant to degree
- 7. Reinforced career decision

**Professional advancement**

- 4. Used experience in job interviews
- 4. Program captured attention of interviewers
- 4. Passionate about program

- 5. Gained real world experience
- 6. One-on-one interaction experience
- 6. Referenced program in resume/cover letter
- 6. Experience in being empathetic
- 7. Opportunity to be spokesperson for benefits of exercise
- 7. Improved communication of mental health disorders
- 7. Apply knowledge learned to everyday life
- 8. Helped learn how to interact with others in a personal and professional setting
- 8. Helped with professional interactions

**Personal development**

- 5. Motivated to recreate more often
- 5. Motivated to recreate with others
- 7. Applied knowledge gained to personal life
- 7. Exciting to apply knowledge gained to real world
- 8. More aware of others emotions
- 8. More aware of others experiences
- 8. Learned importance of going into situations without expectations
- 8. Learned importance of going into situations without expectations

Research Question #5:

*In your opinion, how do you think the Western Wellcat program can be improved?*

**Program structure (4/8 = 50%)**

- 1. More group meetings
- 2. Make notes electronic
- 2. Get all hours in one quarter
- 3. Increase confidentiality of mentors in program
- 6. Allow mentors to give activity suggestions
- 6. Allow mentors to give activity suggestions

**Program expansion (4/8 = 50%)**

- 3. Connect clients at end of program
- 3. Link clients after program
- 4. Bigger presence of program on campus
- 4. Open program up to other majors
- 6. Expand program
- 6. Open program up to non-majors
- 6. More mentors
- 7. Extend relationships with buddies (beyond 1-2 quarters)
- 7. Group Wellcat fitness classes

**Timing/content of trainings (3/8 = 37.5%)**

- 1. All trainings before program starts
- 1. Learn motivational interviewing earlier

5. Incorporate role playing into training for tough situations
5. Practice real-life situations in trainings
8. Role playing for different situations
8. Have past buddies record difficult scenarios experienced for future buddy reference

**Partner pairings** (2/8 = 25%)

2. Match client/buddy better (based on interests)
8. Ask clients if they prefer buddy with car for off campus activities before match