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## Socially supported exercise : implications for improving mental health in women

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Sarah Gillio  
Socially supported exercise:  
implications for improving mental  
health in women

## **ABSTRACT**

This qualitative study uses a Self Psychology framework to explore how a socially supported exercise program, CrossFit, influences women's sense of self and their feelings of vitality. The experiences and perspectives of twenty-seven female members of CrossFit gyms were elicited through self-developed, semi-structured interviews composed of questions that encouraged participants to reflect on what ways they have experienced mirroring, twinship, idealization, and feelings of vitality at their CrossFit gym. All participants reported experiencing these Self Psychology indicators. Every participant also reported that the social support that they experienced at their gym was important to them. The findings of this study suggest the value of interventions that incorporate clients' bodies and relationships. Implications of this study suggest that socially supported exercise can be utilized to improve mental states and that further exploration is warranted.

**SOCIALLY SUPPORTED EXERCISE:  
IMPLICATIONS FOR IMPROVING MENTAL HEALTH IN WOMEN**

A project based upon an independent investigation,  
submitted in partial fulfillment of the requirements  
for the degree of Master of Social Work.

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2013

## **ACKNOWLEDGEMENTS**

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I wish to thank the study participants for their generosity of time and spirit and their willingness to share their personal experiences with me. I would like to extend my sincere gratitude to the community at Pioneer Valley CrossFit in Hadley, Massachusetts for being my cheerleaders and for their eagerness to offer me any assistance I needed. I also wish to thank my research advisor, Roger Miller, for his thoughtful direction and interest in my project. I would like to thank my Smith School for Social Work peers for their motivation, guidance and encouragement throughout this process. Finally, I cannot offer enough thanks to my husband, Paul, who did so much to improve my emotional and mental well-being as I completed this project.

This thesis is dedicated to my family, for always inspiring me to make the world a better place, and to Paul, for reminding me daily how good it already is.

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## **CHAPTER I**

### **Introduction**

The purpose of this study was to explore the qualities of exercise programs that contribute to women's feelings of vitality and integration of self. Heinz Kohut's psychodynamic theory of Self Psychology was selected to investigate how exercising in a socially supported environment impacts women's mental health. Significant research has demonstrated that exercising positively impacts individuals' mental states. Empirical literature has also indicated that social support contributes to people's mental well-being. Regardless of the abundant research and popular discourse touting the compounding positive effects of exercise many people in our nation, particularly women, are still not doing it. Unfortunately, even though exercise has been demonstrated as an effective prevention against and treatment for mental ailments, women are not only more at risk for these ailments but also less likely to exercise. It is important to explore in what way this underutilized tool might be most helpful for promoting a vibrant, cohesive self. This study sought to illuminate how a socially supported exercise program, CrossFit, contributes to women's mental states. Another main goal of this study was to explore alternative treatments for mental illness and enhancers of health that are less harmful and even have positive side effects. Exercising in a socially supported environment could be one source of wellness promotion for women, and possibly both genders.

Through the lens of Self Psychology, this qualitative study explored how exercising within a group setting contributes to the formation of a vibrant, cohesive sense of self. Interview

questions inquired about presence and quality of mirroring, twinship, idealization, and feelings of vitality for women in a CrossFit exercise class. Due to the exploratory nature of this research, a qualitative interview was chosen as the most effective approach to pursue this deeper understanding. Heinz Kohut's theory of Self Psychology was used to formulate the questions asked as well as to guide the analysis of responses. The interview was semi-structured so certain questions could be asked to elicit information around themes, while keeping the questions open-ended enough so that respondents could discuss their own individual experiences, reactions, and responses to whatever extent they chose.

## **CHAPTER II**

### **Literature Review**

Throughout history many societies have used exercise as a means of preventing disease and promoting health and well-being. There is evidence that exercise is beneficial for mental health as it reduces stress, anxiety, and depression while improving self-esteem and cognitive functioning. However, exercise is seldom recognized by mainstream mental health services as an effective intervention in the care of mental health problems. The current conventional treatment for mental illness is some combination of pharmacological medications and psychotherapy. While these traditional treatments are effective to some degree in many people, both can be costly, time consuming, and stigma inflicting. It is important to continue to explore alternatives that may prove more helpful with fewer negative side effects. In addition to treating illness, exercise is rarely acknowledged as a legitimate preventative measure to help all individuals maintain a vibrant, cohesive self. Individuals in our society are often left to their own devices to determine what works for them to uphold a joyful existence. Regardless of the abundant research and popular discourse touting the compounding positive effects of exercise many people in our nation, particularly women, are still not doing it. The American College of Sport and Medicine (ACSM) advocates, “every U.S. adult should accumulate 30 minutes or more of moderate-intensity physical activity on most, preferably all, days of the week” (ACSM, 2005). According to a recent report from the Centers of Disease Control and Prevention, over 50% of U.S. women do not engage in their recommended amount of physical activity, over 38%



of women are classified as insufficiently active, over 14% are not active at all, and physical inactivity is more common among women than men (CDCP, 2008). Unfortunately, even though exercise has been demonstrated as an effective prevention and treatment for mental illness, anxiety and depression, women are not only more at risk for these ailments but also less likely to exercise. It is essential to explore in what way this underutilized tool might be most helpful for promoting a vibrant, cohesive self, for all people.

### **Women and Mental Health**

While it is important for us to fully understand how exercise might positively impact everyone's mental wellness, it is particularly important for us to understand how this works for women. Women are more likely than men to be diagnosed with the primary mental disorders, anxiety and depression. One recent study examined gender differences in DSM-IV anxiety disorders in 20,013 adults in the United States using data from the Collaborative Psychiatric Epidemiology Studies (McLean, Asnaani & Hofmann, 2011). Their data analysis found that women had higher rates of lifetime diagnosis for each of the anxiety disorders examined, except social anxiety disorder, which showed no gender difference in prevalence. Women with a lifetime diagnosis of an anxiety disorder were more likely than men to also be diagnosed with another anxiety disorder, eating disorder, and major depressive disorder. Further, the research showed that anxiety disorders were also associated with a greater illness burden in women than in men, particularly among European American women and to a lesser extent among Hispanic women. These results suggest that anxiety disorders are not only more prevalent but also more disabling in women than in men (McLean, Asnaani & Hofmann, 2011). Depression is also more common and more debilitating in women. Depression is a devastating mental health disorder impacting 7% of the U.S. adult population and the risk of a recurrence can be as high as 50-90%

(National Institute of Mental Health, 2008). The lifetime risk for major depressive disorder in community samples has varied from 5% to 12% in men and 10% to 25% in women. As it is twice as common in women than men, depression is a particular problem for women (Craft, 2005).

### **Exercise and Mental Health**

One potentially helpful and underutilized mechanism is exercise. Exercise is the “training of the body to improve its function and enhance its fitness” (Encyclopedia Britannica Online, 2000, p. 1). Exercise has been linked to have multifaceted benefits, including improving one’s psychological and physical health.

**Psychological benefits of exercise.** There is significant evidence that exercise is beneficial for one’s mental health. Exercise has been shown to reduce both clinical depression and anxiety (North, 1990; Petruzzello et al., 1991; Craft & Landers, 1998; Mota-Pereira et al., 2011; Weyerer & Kupfer, 1994). Some of the strongest evidence is seen in preventing or treating depression. Empirical evidence shows that exercise might improve mood in both depressed and non-depressed individuals. One meta-analysis of 37 studies, found that exercise is as effective as psychotherapy and more effective than other behavioral interventions for treating depression (Craft & Landers, 1998). In another research study, exercise was shown to have a positive effect on depressive symptoms even in treatment resistant patients, which was defined as people who used both medication and psychotherapy for 9-15 months, without showing clinical remission (Mota-Pereira et al., 2011). This quantitative longitudinal study randomized 33 treatment resistant major depressive disorder patients into two groups: usual medication and therapy without exercise and usual medication therapy plus aerobic exercise. The exercise group in this study displayed improvements of all depressive and functioning parameters compared to

their own baseline and compared to the non-exercising control group (Mota-Pereira et al., 2011). In another report, North et al. (1990) examined the results of narrative and meta-analytic reviews investigating the effect of exercise and mood. From participant and researcher reports, the predominant ways in which exercise combated depression were by changing peoples' daily routine, increasing their interactions with others, helping them lose weight, encouraging them to participate in outdoor recreation and facilitating them to master difficult physical and psychological challenges (North et al., 1990). Interestingly, this meta-analysis reported that exercise had a better effect on outcomes for respondents who were more physically and psychologically unhealthy at the outset of the studies (North et al., 1990).

In another analysis, Weyerer & Kupfer (1994) reviewed data from observational studies and controlled trials and found that exercise improved psychological health, in some cases better than counseling alone. Specifically, Weyerer & Kupfer pointed to two studies that demonstrated that aerobic exercise plus counseling was more effective in the treatment of depressive disorders than counseling alone. Further, cross-sectional community studies reveal that after controlling for potential socio-demographic and health-related confounding variables, the risk of depression is significantly higher for physically inactive individuals compared with regular exercisers (Weyerer & Kupfer, 1994).

Exercise has also been shown to prevent and treat anxiety. Unlike with depression, heightened central nervous system activation is the problem with anxiety disorder. Therefore, anxious individuals may be more cautious when participating in arousing activities, like exercise. However, exercise can provide an opportunity for a person to safely experience that excited state and endure it, which by itself can be healing. "One of the important positive effects of physical exercise is it allows people to become conditioned to having their heart rate and respiratory rate

increase when they're not associated with anxiety, thereby addressing the triggers" (Melville, 2012, p. 2).

Petruzzello et al. (1991) conducted three meta-analyses to examine the effect of acute and chronic exercise on state (current) anxiety, trait (dispositional) anxiety and psychophysiological correlates of anxiety derived from 104 studies reported between 1960 and 1989. The results for state anxiety showed the smallest effect (effect size = 0.24). While both continuous and single episodes of exercise reduced anxiety, chronic exercise had a slightly better effect than one bout of exercise. The effect of exercise on anxiety was largest in pre-post test within-groups designs, aerobic exercise was better than anaerobic exercise, and high intensity exercise of 21-30 minute duration had a better effect than low intensity exercise shorter than 20 minutes or longer than 30 minutes. The effect size was largest when anxiety was measured 20 minutes after exercise. Effect sizes were also largest in participants between ages 31 and 45 (Petruzzello et al.,1991).

While the impact of exercise on mental illness has been most extensively studied in clinically depressed and anxious populations, there is increasing research that explores the relationship between exercise and more general notions of mental health such as mood and self-esteem. These more general constructs like "mental health" or "psychological well-being" tend to be umbrella terms that can include different components so it is important to be mindful of how each study defines their terms and measures.

In one literature review, McAuley (1994) considers that relation between exercise and both positive and negative psychological health. This author identifies a positive correlation between exercise and self-esteem, self-efficacy, psychological well-being, and cognitive functioning. He finds a negative correlation between exercise and anxiety, stress and depression

(McAuley, 1994). This examination points out the challenge of understanding the direction of causality in most of these studies by stating uncertainty about if psychological well-being preceded, followed, or operated independently from a particular exercise regimen (McAuley, 1994).

Additionally, different kinds of exercise have been shown to influence people's mental health positively. The positive effects of exercise have been notable even after just a single session of aerobic exercise (Steptoe & Cox, 1988). Several studies illustrate that moderate intensity exercise, for as little as 10 minutes can be enough to observe a beneficial change in mood (Ekkekakis, Hall, VanLanduyt, & Petruzzello, 2000; Hansen, Stevens, & Coast, 2001).

Another quantitative study attempted to answer the question of how long the effects of exercise last for people. DiLorenzo et al. (1990) investigated the effects of exercise on self-reports of depression, anxiety, and self-concept. Eighty-two participants aged between 18 and 39 were randomly assigned to a 12-week program of stationary biking or a control condition. The participants were followed up with 12 months later. At the end of the program and at the follow up, participants who engaged in the exercise program had more positive changes in all outcomes than the control participants.

Daley et al. (2008) performed one of the few qualitative studies exploring this phenomenon. This research surveyed the experiences and views of obese adolescents participating in an exercise therapy intervention. Out of 81 total participants, 28 were randomized to the exercise therapy group. These teenagers were offered a range of exercise and activities (stepping, cycling, rowing, and walking) and exercised intermittently (four minutes of exercise with two minutes of rest) at moderate intensity for 30 minutes, three times per week for eight weeks. The sessions took place one-to-one with an exercise therapist who also provided

exercise counseling for behavior change. Daley et al. stated that participants reported feeling more energetic during and after exercise, than before. Many participants reported feeling happy/happier and expressed feeling better about themselves as individuals after the intervention. Most participants felt more confident in their ability to continue to exercise regularly (Daley et al., 2008).

Another qualitative study by Faulkner & Sparkes (1999) used participant observation, interviews with participants and their case-workers to explore the therapeutic value of a 10-week exercise program of twice weekly sessions, for people with schizophrenia (Faulkner & Sparkes, 1999). The authors concluded that exercise reduced participants' perceptions of auditory hallucinations, raised their self-esteem and improved their sleep patterns. Faulkner and Sparkes attributed the benefit to exercise providing participants with distraction and social interaction (Faulkner & Sparkes, 1999). Unfortunately, this qualitative study only focused on the experience of 3 participants, which is too small a sample size to indicate representation. This is support for the argument that more qualitative studies continue to explore this phenomenon would greatly enrich this field.

Depending on the type, intensity, or duration of exercise, results range across the studies of the effects of exercise on various psychiatric symptoms. However, despite the many methodological differences, the literature strongly supports the role of exercise in preventing and treating mild to moderate mental illness, particularly clinical depression and anxiety.

There are several different theories that seek to explain why exercise has these effects. First, there is the thermogenic hypothesis that posits that exercise raises body temperature and reduces muscle tension causing relaxation (Raglin & Morgan, 1985). Another view is the Opponents Process Model, which suggests that exercise stimulates the sympathetic nervous

system (SNS), which provides a catalyst for parasympathetic nervous system (PNS), which releases the calming neurotransmitter, acetylcholine (Solomon, 1980). Third, the distraction hypothesis proposes that people feel less anxious because they are thinking about anxiety and/or stressful event less (Bakre & Morgan, 1978). It has proven nearly impossible to tease apart these theories of causation. It is most likely that exercise is more or less helpful on different levels and in different ways for different people. One researcher highlighted this truth, stating, “it is misguided to theorize that explanations for psychosocial outcomes will ultimately be reduced to some physiological system (e.g. cardiac-related cortical activity) or neurochemical activity” (Rejeski, 1994, p. 1053).

**Physical health benefits.** In addition to these positive psychological effects, exercise has the added benefit of positively influencing people’s physical health. One measure of physical health benefits is increased fitness. Improved fitness can be seen in measurable physiological adaptations that are associated with increase performance in the ten general physical skills, which are cardiovascular/respiratory endurance, stamina, strength, flexibility, power, speed, coordination, agility, balance and accuracy (Crossfit Journal, 2002). There are many ways in which these physical adaptations impact our greater physical health. For example, cardiovascular adaptations that take place may include a lowered resting heart rate, an increase in the amount of blood that the heart is able to pump per breath both during exercise and at rest, a decrease in resting blood pressure and the production of less lactic acid at maximal work loads during exercise (ACSM, 2005). These cardiovascular adaptations are linked to decreases in artery disease, high blood pressure, non-insulin dependent diabetes, cancer, osteoporosis and obesity (Daniels, 2004).

**Exercise, gender, coping mechanisms and mental health.** After establishing that exercise has a positive influence on mental and physical health, it is important to begin to examine what the mediating mechanisms are for that improved wellness in women. One study investigating the effects of exercise on mental health looked at depression, coping mechanisms, and gender. This 2005 quantitative study described how depressed women are more likely to employ a less adaptive coping strategy than the mechanism more often utilized by depressed men (Craft, 2005). With 22 individual participants, Craft found that women are more likely to ruminate on negative thoughts and feelings, whereas men are more likely to use the coping mechanism of distraction when feeling depressed. Furthermore, those who employ the response of rumination are more likely to have their depression last longer and to experience worse symptoms – so the coping mechanism women employ more often has worse effects (Craft, 2005). This study sought to examine how exercise is associated with the two coping mechanisms, distraction and rumination, and how this affects depression. Craft split the sample into two groups, one who participated in 30 minutes of aerobic exercise 4 times a week and a control group who did not exercise. The exercise group reported lower depression scores and higher coping self-efficacy than the control group at week 3 and week 9. The exercisers also ruminated less than controls at week 3 and week 9. Distraction was higher for exercisers at week 3 but not at week 9 (Craft, 2005). This research tells us that the coping mechanisms for those with depression are enhanced with exercise. Unfortunately, this study did not explicitly address gender in this part of their research, which could have been informative. However, it is still clear that strategies for relieving depression in women requires attention and that exercise could be one helpful tool.



## **Theoretical Framework: Self Psychology**

The framework that we will use to conceptualize the impact of exercise on women's mental health is Self Psychology. Heinz Kohut (1913-1981) formulated this extension to psychodynamic theory in the 1970's and early 1980's. The theory of Self Psychology attends to the kinds of life experiences, specifically, the context of relationships with others, that contribute to the formation of a vibrant, cohesive sense of self. Kohut defined the self as "our sense of being an independent center of initiative and perception, integrated with our most central ambitions and ideals and with our experience that our body and mind form a unit in space and time" (Kohut, 1977, p. 177).

First, it is important to ask, what makes a healthy self? According to Webster's Online Dictionary, mental health is a state of emotional and psychological well-being in which an individual is able to use his or her cognitive and emotional capabilities, function in society, and meet the ordinary demands of everyday life (Webster's Online Dictionary, 2012, p. 1). Kohut conceptualized mental health as the possession of a vital, cohesive self. Kohut's thoughts on what made a person alive and whole were so groundbreaking that his hypothesis became its own derivative of psychodynamic theory, called Self Psychology. He stated that a healthy self is physically and psychologically integrated and autonomous (Kohut, 1977). Self Psychology asserts that an individual starts to develop this healthy self in childhood with the parent-child relationship. In *Self Psychology and Clinical Social Work*, Miriam Elson further clarifies this definition stating that the "parental response will determine whether the child will become driven or will form a cohesive nuclear self able to experience pleasure in his physical and mental attributes capable of balancing this with his ideals in a manner which allows him to achieve goals he can define for himself" (Elson, 1986, pp. 8-9). Kohut's Self Psychology framework can be

helpful when thinking about mental health and wellness today. Exercise might be one underutilized way to access this vibrant and integrated self.

While Kohut was a trained psychoanalyst attempting to enrich his field, his formulation broke away from traditional drive theory and ego psychology in many ways. Kohut postulated that the self is best understood - in childhood, in therapy, and throughout life - through empathy rather than insight. Further, the self develops best in relationships that balance empathic responsiveness and manageable empathic failures. Self Psychology proposes three different poles, or parts, that are necessary for a person to experience in order to develop a healthy and unified sense of self. Kohut calls this the tripartite self, which is “driven by ambition, pulled by ideals, and needing to recognize itself in similar others (Flanagan, 2008, p. 163). These three needs are mirroring, idealization, and twinship. According to Kohut, these three experiences are also the transference dynamics that are helpful to utilize in therapy when someone’s self is fragmented or fragile. These three poles are nurtured by what Kohut called selfobjects in the person’s life. Selfobjects are usually people – like parents, teachers, therapists, and peers – but can also be things – like art, literature, music and symbols. The first pole is the mirroring selfobject or the grandiose self. This pole refers to a person’s need for a selfobject who will reflect and identify its unique capacities, talents and characteristics. The mirroring selfobject nurtures the part of the self that needs to feel special and seen in order to feel powerful and unique. The second selfobject Kohut stated that we all need is the idealizing selfobject or the idealized parent imago. This pole speaks to a person’s need for a selfobject that is strong, calm and great to idealize and merge with in order to feel safe and complete within the self. The third selfobject Kohut proposed was twinship. The twinship pole refers to a person’s need for a selfobject who is similar to the self in some way. Twinship addresses a person’s requirement to

experience mutual recognition. The experience of the twinship selfobject will provide a person with a feel sense of security, belonging and legitimacy, helping a person feel less alone (Kohut, 1977; Flanagan, 2008; Mitchell & Black, 1995).

**Exercise, social support, women.** Using the Self Psychology framework as we explore the ways in which exercise positively influences one's vitality and cohesion within the self, group exercise programs might be one helpful mechanism for women. Research has established an association between both exercise and social support for women's mental health. For example, one study found that perceived exercise of close others as well as perceived support for exercise are both positively associated with one's own exercise habits (Darlow & Xu, 2011). Perceived exercise was measured by participants reporting what they thought the frequency and duration of their friend and partner's exercise habits was. Perceived support is more strongly associated with higher frequency of exercise for women. Women tend to identify more barriers to exercise than men do, such as feeling self-conscious in an exercise environment (Darlow & Xu, 2011). Another significant example found in this research is that women are more vulnerable to feeling discouraged from exercising if their close friends don't exercise themselves or do not support them in their exercise habits (Darlow & Xu, 2011). This shows how important the right kind of social support is for women to increase the effectiveness and positive experience of exercise for women.

Another quantitative study to illustrate a link between social support and depression looked at 490 third graders and 455 sixth graders at the beginning and end of the school year. The self reports, teacher ratings, and parent reports examining mood, social competence, and academic competence showed that social competence predicted depression for sixth graders

(Cole, Martin, Powers, & Truglio, 1996). This indicates that there is a correlation between depressed mood and social competence. As social competence increased, depression decreased.

Finally, another study of adolescents indicated that reducing pressure to lose weight and promoting positive interactions with others during exercise improved likelihood that teenage girls would continue to exercise (Gillison et al., 2011). Gillison et al. administered a questionnaire to 310 high school students. The cohort was classified into four groups on the basis of reported change in leisure-time exercise over 10 months: those who maintain, drop out from exercise, take up exercise, and those who are continually inactive. This study showed that, in teenage girls, exercise maintainers reported higher intrinsic motivation, identified regulation, autonomy, competence, relatedness, and lower external regulation than all other groups (Gillison et al., 2011). Results also indicated that high body mass index and perceiving greater pressure to lose weight positively predicted drop out and negatively predicted exercise uptake. So interestingly, beginning with a negative factor, such as depression or high body mass index, complicates the likelihood of persisting in exercise if one does not have social support. This indicates that young women may be more susceptible to the benefits of others supporting their exercise habits.

**Social support in group exercise programs and teams.** While there is anecdotal and empirical evidence that exercising in a group promotes bond and improves mood, most empirical studies that examine the social and emotional effects of exercising in a group look at youth sport participation (Smith, 2003). One cross-sectional study used a quantitative study of 449 Canadian students from grades 8 to 12 to examine the mediating effects of involvement in team sports on the relations between social acceptance, body dissatisfaction and depressive symptoms (Boone & Leadbeater, 2006). Findings showed that positive team sports involvement partially mediated

risks for depression for both boys and girls (Boone & Leadbeater, 2006). Another research project analyzed the data from the National Education Longitudinal Study of 1988, a longitudinal study sponsored by the National Center for Education Statistics for the U.S. Department of Education to examine athletic participation effects on growth and change in a variety of academic outcomes during high school (Marsh & Kleitman, 2003). This data analysis found that participating in high school sports had positive effects on many outcomes, including school grades, educational and occupational aspirations, self-esteem, and eventual educational attainment. These positive effects were demonstrated across academic and non-academic outcomes, across the entire range of athletic participation levels, and across different subgroups of students (e.g., SES, gender, ethnicity, ability levels, educational aspirations) (Marsh & Kleitman, 2003).

### **This Study**

While children and adolescents often receive social support while exercising by participating in team sports, this route for social support while exercising is less utilized in adulthood. One common way that adults do get social support while exercising is by participating in group exercise programs or classes. This study will interview women engaging in a particular kind of group exercise class, CrossFit, to explore their experience of its influence on their self-vitality and self-cohesion.

**What is CrossFit?** One popular group exercise program is called CrossFit. CrossFit is a strength and conditioning program that is taught and most often performed in group classes, consisting of anywhere from 5 to 20 people (The CrossFit Journal, 2002). CrossFit programs frequently operate out of independently owned CrossFit gyms composed of anywhere from 50 to 300 members. Classes are composed of individuals with a mixture of ability, experience, age,

and gender. In CrossFit gyms, there is an explicit emphasis on the importance of social support and community. It is common in a CrossFit class to have members know each other's name and verbally encourage each other during a workout. It is also frequent for participants to discuss triumphs, challenges, and progress with other members in the gym. Due to the theoretical and practical prominence of social support in CrossFit gyms, it is logical to interview women about their experience of self in this exercise milieu.

While much research indicates that exercise might be one helpful mechanism for women to maintain a vibrant, cohesive self, the next question to consider is what quality might that exercise have to access that success? Using the Self Psychology framework, this qualitative study will explore how women experience mirroring, idealization and twinship within a CrossFit exercise class.

## **CHAPTER III**

### **Methodology**

Through the lens of Self Psychology, this qualitative study explored, how exercising within a group setting contributes to the formation of a vibrant, cohesive sense of self. Interview questions inquired about presence and quality of mirroring, twinship and idealization and sense of self for women in a CrossFit exercise class. Due to the exploratory nature of this research, a qualitative interview was chosen as the most effective approach to pursue this deeper understanding.

### **Research Design**

The benefit of this method is that participants had the freedom of open-ended questions to express their experience of the group class setting. Follow up questions used slightly different language to ask participants to describe their experience, with the assumption that different wording could lead to a more descriptive response from participants. Questions also provided an opportunity for participants to explain both the positive and negative aspects of their experience of socially supported exercise at this gym. Another reason that this method was employed is that the interview will be potentially enjoyable for participants, who may not have had an opportunity to reflect and share their experience in this way previously. Additionally, most studies in my research that explored exercise, social support and sense of self were quantitative experiments. Therefore, a more open investigation would be a helpful contribution to this field.

## **Sample**

The inclusion criteria was female gender identity, age 18 or older at time of interview, English language speaker, ambulatory, participated in CrossFit exercise program for at least 60 days, plan to continue, and members of Pioneer Valley CrossFit, which is a CrossFit gym in Hadley, Massachusetts. The sample size was 27 respondents.

To recruit participants, both the internet (i.e. the gym's Facebook page and blog) and printed posters in the gym were used to advertise the study. The study utilized a snowballing recruitment strategy. This method was feasible for this particular type of study as well as its population. The initial notification briefly introduced the purpose of the study and the nature of participation.

While this sampling frame provided interesting information it is not generalizable for many groups outside this specific population. CrossFit gyms have a unique philosophy and design, so information gleaned could be particular to participants in a CrossFit exercise program, not necessarily any group exercise program. CrossFit's particular emphasis on the importance of community could influence both the participants and their responses to my questions. Also, a CrossFit gym membership is expensive (anywhere from \$100 to \$200 a month), which limits the socio-economic status diversity of my sample. Additionally, the population of this CrossFit gym is not racially diverse. While any results from this study sample are representative of only this group, they could provide clues or inspire questions for further inquiry into other populations. This limited sample frame is the biggest potential bias and omission. As one strategy to encourage diverse participation, in my letter of consent form, a sentence is included that encourages people of minority social identities to participate to help ensure as much representation as possible.



## **Data Collection Methods**

Participation involved engaging in a thirty-minute interview that was conducted privately, in person, and was tape-recorded. Interested parties were provided with information about inclusion criteria and informed consent. A copy of the complete Human Subjects Review Board Approval, the Recruitment Material, the Informed Consent Letter, and the Interview Guide are located in Appendix of this paper. This writer worked with participants to find a mutually convenient time to conduct the interview. Interviews were conducted in the CrossFit gym's private office. Due to this setting, it was not possible to ensure that people's participation was confidential which was explained in the Letter of Consent, which can be viewed in Appendix C.

Questions about demographic data, specifically, age, race, athletic level, duration of membership at gym, and if another family/household member is a member of her gym were also asked. These responses provided interesting sub-categories to consider when analyzing the data. The interview narratives, ranging from 15-45 minutes, took place between February 1<sup>st</sup> and March 30<sup>th</sup>, 2013. The interview was recorded on a handheld tape recorder. This writer transcribed the recorded interview. The transcribed interview was coded for themes and a content analysis was done.

Open-ended questions that explored the participant's experience of social support while exercising and its influence on their mental health and wellbeing were asked. Heinz Kohut's Theory of Self Psychology was used to formulate the questions asked and guide the analysis of responses. The interview was semi-structured so certain questions could be asked to elicit information around themes, while keeping the questions open-ended enough so that respondents

could discuss their own individual experiences, reactions, and responses to whatever extent they chose. This writer asked follow up questions to further clarify or add depth to information gathered when appropriate. Every effort was made to avoid asking leading questions that would elicit specific answers. The complete interview guide is located in the Appendix of this paper.

Questions explored the following areas: In what ways is exercising at a CrossFit gym different from exercising in other contexts? Can you describe ways in which you have felt special or unique at your CrossFit gym? Can you describe ways in which you've had others to look to as a role model at your CrossFit gym? Can you describe ways that you have felt similar to others at your CrossFit gym? Can you describe how exercising at your CrossFit gym influences your feelings of vitality? Can you describe how you experience exercising at your CrossFit gym as a woman? Please view the complete Interview Guide in Appendix D.

In order to enhance the study's validity, my thesis advisor and a female CrossFitter who is an Associate Professor of Psychology and Education at Mount Holyoke reviewed my interview guide and provided feedback on the clarity and relevance of the questions. Piloting the interview guide with two individuals who were not part of the sample strengthened reliability. Pilot testing gave me a sense of logical flow, clarity of questions and interview time frame.

### **Data Analysis**

This writer's hypothesis for this study is that women interviewed will express that exercising in a group setting positively influences their experience of a cohesive and vital sense of self. After transcribing the qualitative interviews, this writer will code the responses for themes, which is content or theme analysis.

## **CHAPTER IV**

### **Findings**

This chapter contains the findings from interviews conducted with twenty-seven women CrossFitters who met the selection criteria for the study. The interview was ten questions in length and covered the following main categories: 1) difference between exercising at CrossFit gym and exercising in other contexts, 2) experiences of feeling special at a CrossFit gym, 3) experiences of having role models at a CrossFit gym, 4) experience of feeling similar to others at a CrossFit gym, 5) impact of exercising at a CrossFit gym on feelings of vitality, and 6) experience as a woman who CrossFits.

In the first question set, participants provided explanations of why they started exercising at their CrossFit gym, what about it made them wish to continue, and what they have found to be the most salient differences between exercising at their CrossFit gym and in other contexts. These questions were designed to set participants mindset to start comparing their experience at CrossFit to other experiences as well as to learn what those salient differences are for participants.

The second category, experiences of feeling special at your CrossFit gym, was designed to learn about the presence, frequency and quality of mirroring in this setting.

The next question, experiences of having role models at your CrossFit gym, gathered information on if and when participants were able to look to other's in their CrossFit gym as a

role model. This question was designed to learn about the presence, frequency, and quality of idealization in this setting.

Fourth, participants were asked if they felt similar to others at their CrossFit gym. This line of questioning was meant to explore in what ways participants experienced twinship.

The next question was designed to explore how participants feel that exercising at their CrossFit gym positively or negatively impacts their vitality. I explained vitality as being their sense of energy, liveliness and vigor. The objective of these questions was to see how the quality and presence of Self Psychology's three poles influences participants sense of self.

In the final questions, participants described how they experienced being a woman who CrossFits. They were asked to reflect upon whether their gender influences their experience at their CrossFit gym and if being a CrossFitter influences their experience navigating the world as a woman. Some women discussed ways in which exercising at a CrossFit gym felt very different from exercising in other contexts particularly in light of being female.

### **Demographics of Participants**

The study was comprised of twenty-seven female identified participants who had been CrossFitting for at least sixty days and who planned to continue CrossFitting. Twenty-one of the participants were members of Pioneer Valley CrossFit in Hadley, Massachusetts. Six participants were members of other gyms. Three participants were members of gyms in the Boston area, two were members of gyms in Tucson, Arizona, and one was a member of a gym in Brooklyn, New York. Participants ranged in age from twenty-one years old to sixty years old. Twelve participants were in their twenties, six were in their thirties, six were in their forties, two were in their fifties and one was in her sixties. Twenty-six of the twenty-seven participants identified their race as White/Caucasian and one participant identified as White/Hispanic. Two

participants were pregnant at the time of the interview. Three participants self-identified their current CrossFit athletic ability as novice, one participant identified as between novice and intermediate, thirteen participants identified as intermediate, four participants identified as between intermediate and advanced and six participants identified as advanced. Nine participants reported having someone in their immediate family or household also a member at their CrossFit gym. Six participants reported that someone in their immediate family or household was a member of another CrossFit gym. Eleven participants reported that no one in their family or household was a CrossFitter.

### **Components of Discourse**

**Experience of mirroring.** All participants reported some experience of mirroring, that is, they experienced trainers, classmates or both trainers and classmates recognizing their athletic and mental achievements, while exercising at their CrossFit gym. All reported that this was a positive experience for them in some way. A small number of participants stated that they did not experience feeling recognized, special, or unique in the beginning of their time at their CrossFit gym but did later on. Most stated that they had this experience on at least a weekly basis.

One participant said she still remembered her first day, when the trainers at their gym stated, “wow, you seem to have a natural ability at this, this is something that you will be good at if you pursue it.’ And that was really awesome to hear.” This same respondent reported that this recognition or validation can be internal or external, saying:

When you really work hard and see yourself do well, or you see someone else work hard and do well, it’s like this thrill of excitement. It’s exciting for the person, it’s exciting for you and it’s exciting for the community.

Another participant stated, “another big difference between other settings is the community aspect. The coaches and other people at the gym are always noticing when you are improving or giving you other kinds of support.”

Two participants mentioned valuing when their gym posts photos of them working out on Facebook, appreciating that others in their lives can see and comment on their achievements in the gym. A fourth woman discussed how she values feeling internal recognition more than the recognition that she got from trainers or classmates. She said:

That’s always nice, but for me it’s more internal, like I feel good about myself for accomplishing something that I know I have been working on. Or when I do a workout that at first I thought, “oh no that is way too hard, I wont be able to complete it.” And then I complete it.

Many women interviewed echoed this sentiment of appreciating accomplishing something that originally the participant was unsure that she would be able to.

More than half of the participants spoke about the importance of feeling recognized either from others, themselves, or both for achieving something that they did not think they could achieve. One woman discussed the following memory:

There was one day when I finally reached the top of the rope and [the trainer] ran over and took a picture and realized that getting a rope climb was huge for me. I probably have that special/unique feeling about once a month. I think it’s less about feeling special or unique but it’s more about feeling seen. For me, the important thing is being acknowledged, feeling like someone is paying attention. I feel that maybe twice a week.

One woman spoke about sticking with her CrossFit gym, even though it was challenging and out of her comfort zone, because she wanted to get recognition from the owner and other classmates for sticking with it. She reported:

In the beginning it was really challenging, because everything they had me do was really foreign, and hard, and scary. I really don't know what made me stay. Part of it was to prove [the owner] and the others wrong.

Later this same participant spoke about the authenticity that she experienced from the trainers at her CrossFit gym:

With the trainers it's clearly a labor of love and not a job. They really celebrate when I hit a PR [personal record] or do something that I couldn't do six months ago. And that does seem genuine. Like it's everybody's success.

Several other participants also spoke about experiencing their trainers as genuine.

A number of people discussed that they have experiences of putting themselves down for not doing as well as they would like in their workouts and that other classmates or trainers will notice this and say words of encouragement that help them in those moments. "Having someone else say something to me in those moments is really helpful. A lot of people in the gym say something to help you."

Several participants stated that there can be significant variation regarding their experience of feeling recognized, validated, or acknowledged depending on who the trainer for their class is, what mood the trainer is in that day, what workout is programmed for that day, or how they themselves are feeling or performing on the workout.

**Experience of twinship.** All participants reported having some experience of feeling similar to others, or twinship, at their CrossFit gym. Many people felt commonalities from the

fact that everyone is doing their own version of the same workout each day. One participant explained this shared experience, “once class starts, we are all doing the same workout in some way.”

Interestingly, the way many interviewees thought about this similarity varied. About half of those interviewed stated that they often felt very similar to others in their CrossFit gym, highlighting shared values, shared ages, or shared work/life/family stages. The other half of those interviewed discussed that they felt like the group at their CrossFit gym was very different and it was just CrossFit that brought them together. These respondents often stated that they valued that this was a place where they interacted with different kinds of people that they might not have an opportunity to interact with. Those who discussed the differences between the people in their CrossFit gym reported that the commonality was a shared interest in CrossFit, which many said might mean they have a shared drive to push themselves physically, to be healthy, or to better themselves. For example, one woman stated:

We all have something in common, even though we may be different in a lot of ways.

I think what we have in common is that we all want to feel good – it’s not necessarily that we all want to lose weight. It’s that we all want to stay healthy.

Another participant said:

There is a whole group of people that you meet in that environment. Some are close friends, some are people you enjoy spending time with, they come from all walks of life and all different places that you may not have met if we weren’t coming together to do this. Somehow that whole workout experience of suffering and getting through that pain together fosters a unique friendship and sense of family.



Half of the participants discussed a positive, bonding experience of going through a shared pain or overcoming something difficult together as an experience of twinship that the previous quotation demonstrates. Another woman said:

There is no other way to connect to people this strongly, this quickly, that I have found.

It's probably because of the physical labor that we are doing together. What else is there besides your body, your vitality, your spirit. It's all connected and influenced by this.

Many respondents discussed that they value the shared experience of everyone having their own strengths and weaknesses. One woman said, "If you suck at one thing, you are good at something else. And then someone will say, 'wow, you did good at that.' Every day someone says something that is positive."

The same interviewee reported that she did not experience twinship in the beginning of her time at her CrossFit gym.

Starting off I was intimidated. I was like, "oh these people have much more endurance than me and they are so much stronger." But that faded pretty fast. It turned into, "I'll get there. I just have to keep going." Maybe the first two weeks it was, I felt slower, and weaker, and fatter, and all those things. Now it's different.

A few other women similarly shared that it took some time to feel that they were like the others at their CrossFit gym.

One participant wondered if CrossFit draws other people that are outcasts like she feels she sometimes is, stating:

Like I look at some of the women that are super strong and have the ability to squat tons of weight but might not have a conventional body type. They maybe didn't fit-in in other situations. They came here and found a community where they do fit in.

**Experience of idealization.** All participants interviewed were able to quickly identify experiences of looking to others in their CrossFit gym as role models, or idealization. It was explained to participants that role models were someone with whom an admirer identifies (i.e. wants to be like). All those interviewed mentioned certain women who they particularly looked up to. Most spoke about emulating other female CrossFitters' physical capabilities and athletic accomplishments. This experience was very important for many participants. For example:

I think that is what is most helpful, seeing someone doing the same workout as you but doing movements that you can't do yet, like one person is doing banded pull-ups and the other is doing kipping pull-ups... that happens all the time. And so you're always looking to that person who's doing it next to you and thinking that you want to do it that harder way.

Another interviewee in her thirties stated, "there are women in their upper fifties who are out lifting me. That is awesome. It gives me something to aspire to and shows me that you can just keep going and keep improving."

Most women also reported looking up to other CrossFitters' mental strength and positive attitude. Idealizing others' mental game was less specifically focused on women in their gym, while participants discussing the athletic accomplishments that they looked up to were specifically referring to females. Another interviewee discussed that there are many different kinds of opportunities for idealization:

You can always see a characteristic in someone's workout. Even if they are the last one finished but they just kept going. Because that can be a hard position to be in too. So whether it's the best person or the last person, I can see someone where I can say, "wow that's impressive."

Many respondents discussed emulating both mental and physical qualities of other women in their CrossFit gyms. When given an opportunity to think about times when she has not been able to look to someone in her CrossFit gym as a role model, one participant stated:

No, I think I always have someone to look to as a role model. Because there are always women to look up to athletically. Then beyond that there are the coaches who are awesome, like, either because of their athletic ability but also just the way they live.

A small number of participants stated that if for some reason they are not feeling inspired by other members of their own gym, then they will look to the greater CrossFit community for role models. People discussed looking at the websites of famous female CrossFit athletes or communicating with friends who CrossFit in other places to get support or motivation that they need.

One participant reported that they looked up to their female gym owner, “because she’s found success in a male dominated world.”

**Overall positive impact on vitality.** All respondents stated that exercising in the group setting of their CrossFit gym has a positive impact on their vitality. Some spoke about an immediate impact after each individual workout. Others referred to an overall positive impact on their life and positive feelings. For example, “every day I feel more alive, and awake, and energetic than I did the day before.” Most participants reported experiences of some combination of improved self-esteem, improved mood, improved energy, and increased confidence navigating the world. One respondent said, “I’m someone who has struggled a lot with depression and anxiety and CrossFit is something that I have to go to. If I don’t go my life is not good.” Several women specifically spoke about how CrossFitting positively influences their mental health in a way that is therapeutic and integral to their happiness. Some were unsure if that was

just from exercising in general or from CrossFit specifically. However, many participants stated that they were more likely to exercise because of the motivation, accountability, excitement, and fun provided by the unique group atmosphere and programming at their CrossFit gym. Others wondered if they experienced a significant impact to their vitality from CrossFit due to the intensity of the workouts. However, others reported that occasionally on days when a workout is particularly challenging they may experience a temporary negative impact on vitality because they feel exhausted. These women said that this feeling subsided quickly and was a good experience overall.

Almost all of the respondents reported feeling more comfortable, confident, or capable in and out of gym. One participant described this experience, stating, “For me, when I accomplish something that I didn’t think I could in here, it makes me think I can accomplish things I didn’t think I could outside of here.” Most participants stated that this experience of feeling more comfortable and capable was particularly important for them as a woman. For example:

You feel very judged being a woman at a regular gym. Or you feel like the men are checking you out. It feels like it’s a lot more judgment involved in other places. There is just more negativity because you don’t get to know each other and there isn’t that community feeling.

Several women reported valuing that their experience at CrossFit increased their feelings of empowerment, pride, and strength. One woman said, “putting more weight on my bar than some of the men around me is awesome.” This same interviewee went on to report, “it is great to be a part of a community that values female physical strength instead of deciding that this trait is too masculine and implies negativity.” Another participant stated:

At the gym, you are part of this community and you have this ability to empower yourself

to be strong. Most women aren't strong. Most women are skinny fat. Most women don't realize that to be strong is amazing.

Finally, a fourth woman interviewed expressed, "and it's badass. I've never been stronger and confident and just happy."

A few participants discussed how being a CrossFitter has been transformative and has become part of their identity. One woman stated, "CrossFit has changed my image of what exercise can do for people. It's definitely life changing. Also, it is where I see strong, empowered females. That is what CrossFit has become for me." Another participant explained, "going to CrossFit really challenged the way I had viewed myself for many years. I do feel like I fit in there and enjoy what I do."

When given the opportunity to reflect on if CrossFit negatively impacts their feelings of vitality, several participants discussed times when they have been injured. One participant had a memory of the day when she dislocated her shoulder and felt uncomfortable crying at her gym but was very upset. "I remember specifically, that was an awful day. Because I remember I was scared and it hurt and I just wanted to cry. And I was thinking 'I can't... I can't cry at CrossFit.'"

A small number of women interviewed stated that they struggled at times feeling positive about some of the physical changes that their body has gone through due to CrossFit. For example, "it was challenging as a woman coming in because I do see that my body has changed and I am okay with it mostly, but I am not always okay with it." This same woman went on to say, "But then you see all these women in here doing all this really cool stuff and you realize that being strong is beautiful and it's a really cool thing."

One participant stated, “I wish my husband would take more assertive steps towards eating better and exercising more” when reflecting on any ways that exercising at CrossFit negatively impacts her feelings of vitality.

**Community support and encouragement.** Every participant reported that the social supports that they experienced at their gym were important to them. Some women discussed the relationships with classmates, some discussed the relationships with trainers and some discussed both. One participant stated, “I think for the first time in my life I actually have a good set of friends. I feel like they are behind me, pushing me, encouraging me, and supporting me.” Another woman said, “nothing feels better than when you are working on a team and you do something that your team needs you to do.” A third respondent stated, “I like being able to rely on other people and know that other people will always be there.”

One participant was far along in her first pregnancy at the time of our interview. She reported that, “it’s been amazing to workout at CrossFit while pregnant. The trainers have been so accommodating.” She went on to discuss one trainer who had been particularly helpful, “He’ll send me articles about CrossFitting while pregnant and he’s really educating me about what’s safe and what isn’t so it’s been a great support.”

A small number of participants stated that they did not think they would have liked group classes in the beginning but then it grew on them and now they really enjoy it. “I hated coming every time but I noticed that I felt better afterwards and felt better in my life in general. I just had to get over that fear of being in a group.” Another woman interviewed reported a similar transformation about her feelings of working out in a group:

It has been better than any workout experience of my entire life. I was never very athletic. I never did sports. I am one of those people that likes to go on a bike ride by

myself or go on a hike by myself. I was actually really surprised at how much I liked being around other people and working out with all these other people.

Many discussed that the community support and encouragement that they experience at their CrossFit gym mitigates the internal criticism that they experience. One participant recalled a few experiences when she struggled in a workout, felt upset about it, and was then supported by others in her gym. She said, “even when that happened I could express that at the gym and someone would always come over and really boost me up.”

Two respondents discussed a specific memory they had of struggling with a workout and having another classmate who had already finished the workout join them where they were at and help them finish:

And during that 5K run here, I was just dieing. And on my way back, one of the guys from my class actually met me and ran with me the last quarter mile and was like, “you can do this.” So that was like, “wow.” No one would ever do that at a regular gym.

Another women reported a strikingly similar story of a classmate who was already finished with the workout of the day joined her to help her finish saying:

That was so special to me. She could see that I was struggling. I was crying. I was absolutely miserable and she got down on the floor with me and jumped with me. So in that moment I really felt like she believed in me. She knew I wanted to give up and she helped me not give up.

**Motivation, accountability, and competition.** Almost all participants reported positively experiencing the increased motivation, accountability and friendly competition at their CrossFit gym. Many discussed that this contributed to a more successful and fulfilling workout

experience as they were more likely to show up, push themselves harder, and feel like they achieved something due to this supportive and competitive group atmosphere. For example:

I have those off days a lot more often when I am working out outside of the CrossFit gym. Because I have to personally motivate, whereas in the gym you can forget about that when someone is yelling at you or you can smell the competition. That works for me.

Several individuals pointed to the twinship or shared experience of everyone working hard together as being the reason for experiencing increased motivation at their CrossFit gym. One woman interviewed stated, “it’s easier to push through those hard times when you know that everyone else is experiencing those same things.” Another participant who spoke about pushing herself more athletically in a group setting said the following, “this is a little more competitive but yet it’s almost like you are all part of the same team. It’s this funny balance when you want everyone to do well but you are also sort of competing against each other.” Many women discussed that they experienced this balance of friendly competition at their CrossFit gyms and that they valued this experience. However, many also discussed how this could be a tenuous balance and at times they felt disappointed or saddened because they were not performing as well as they would like to. Several reported feeling nervous or uncomfortable when they first started at their CrossFit gym, stating they felt awkward or self-conscious at first.

**Gender equality not in other gym settings.** Over half the respondents discussed that they experience gender equality exercising in their CrossFit gym that they do not experience exercising in other gym contexts. Reflecting upon her experience as a woman exercising in a CrossFit gym, one participant reported:

I think the whole mood of the place is different when it’s a mix of men and women



together. It feels like it's the same experience for both men and women. One of us might be better than the other but it doesn't matter which gender we are.

Several women discussed valuing a shift of focus from appearance to performance. For example, "I feel more comfortable. It's more about how much weight am I going to lift today, not what I look like." Another interviewee said, "I feel very solid not to be thinking about my body in terms of what it looks like but how it functions. That is really important in terms of being a woman and feeling powerful."

## **CHAPTER V**

### **Discussion**

#### **Expectations of Findings**

This study sought to illuminate qualities of exercise programs that contribute to women's feelings of vitality and integration of self. It was expected that the relationships with trainers and classmates that are integral to CrossFit gyms are providing members with the balance of attuned responsiveness and manageable empathic failures that we all need.

Heinz Kohut's psychodynamic theory of Self Psychology was used to explore how exercising in a socially supported environment impacts women's mental health. This writer chose this theoretical model for its fit to this study. Due to this selected frame of reference, this study helped us learn about Self Psychology variables. If this writer had chosen to use another theoretical framework, we would have learned different information from our participants.

This framework proposes that there are three different poles, or parts, necessary for a person to experience in order to develop a healthy and unified sense of self. Kohut calls this the tripartite self, which is "driven by ambition, pulled by ideals, and needing to recognize itself in similar others (Flanagan, 2008, p. 163). These three needs are mirroring, idealization, and twinship. Due to this writer's personal experience with several CrossFit gyms, it was expected that women would have these three experiences participating in CrossFit. With relationships that offered these three experiences, Kohut stated that a healthy self would develop to be physically and psychologically integrated and autonomous (Kohut, 1977). From both the literature and this

writer's experience, another expected finding was that women interviewed would have experienced a positive impact on their feelings of vitality due to exercising at their CrossFit gym. It was also anticipated that women would report the importance of the social support on their physical and emotional health, by discussing the friendships, group atmosphere, and community dynamic of their CrossFit gym.

There are several factors that may have biased the research in different ways. First, the participants were more likely to report a positive experience with CrossFit due to the inclusion criteria that they all be members of a CrossFit gym for at least sixty days and planned to continue. It is less likely that people would agree to commit their time and money to a CrossFit gym if they did not enjoy it in some way or recognize some benefit. Also, simply agreeing to be interviewed for a thesis about this topic biases my results, as those who would volunteer their time to discuss this topic might be more likely to have had a significant positive experience with CrossFit. Also, my own bias toward the positive benefit of CrossFit may have influenced the research and conflated the findings. I am a woman who has been CrossFitting for three and a half years and for whom CrossFit is an important part of my life. I am an assistant trainer at the CrossFit gym to which twenty-one of my participants were members. As the interviewee, these factors could have contributed to participants focusing more on positive experiences and could have contributed to participants feeling less comfortable expressing their negative experiences. I was very aware of these biases during my recruitment and interview process and attempted to provide freedom and openness to critical thinking. In an attempt to address these biases, I asked separate negative questions for each of my themes, to encourage participants to think about any times in which they have not experienced mirroring, twinship, idealization or positive impacts to

their vitality. Some participants were able to describe experiences when these feelings were absent, but overall the interviewees' reports were inclined towards a more positive perspective.

Twenty-seven interviews is a considerable enough number to demonstrate notable patterns and themes. The findings offer worthwhile insight into a woman's experience that may be unique in some ways, but common and relevant to other groups as well. However, the small number of participants may hinder generalizability.

### **Experience of Three Poles: Mirroring, Twinship, and Idealization**

As there has been no published, empirical research focusing on CrossFit, there are no previous findings about this specific exercise program to locate this study in relation to. However, there has been significant research focusing on different ways that exercise positively impacts people's mood and well-being. Most empirical studies that examine the social and emotional effects of exercising in a group look at youth sport participation (Smith, 2003). The present study intended to address this gap in the literature.

The first task of the present study was to explore if and in what ways women experience feeling recognized, validated or unique in their CrossFit gym. The findings of this study substantiated previous literature showing that exercising in a group setting can provide opportunities for mirroring experiences, such as being recognized, validated and affirmed. For example, the youth sport participation research reported positive correlations between participating in a youth sport team and indicators like self-esteem, academic performance and healthy relationships (Smith, 2003). Second, this study explored participant's experience of feeling similar to others at their CrossFit gym. The way participants described their experience of twinship was the most surprising finding, as many women initially explained that they felt different in many ways from others at their CrossFit gym. Each participant did identify ways

that they felt similar to others at their CrossFit gym; however about half of the interviewees conceived of this twinship in an unanticipated way. This group stated that they felt like CrossFit was a place where many different kinds of people got together and might only share their love for CrossFit, which some elaborated on as a shared drive for bettering themselves and desire for a healthy life.

In addition to looking at mirroring and twinship, another experience explored in this study was idealization. Previous research has shown that women are more likely than men to have female athletic role models and to have cross-gender athletic role models (Giuliano et al., 2007). Moreover, whereas men primarily seek out role models based on their qualities as an athlete, women value role models for both their professional and personal qualities. Both men and women who have public athletic role models during childhood are more likely to play sports at a higher level when they grow up (Giuliano et al., 2007). This literature aligned with the findings of the present study, that women in CrossFit gyms seek out role models in general, that they appreciate mental and emotional qualities in addition to athletic qualities, and that having role models influences their own athletic involvement.

### **Overall Positive Impact on Feelings of Vitality**

The fourth theme related to Self Psychology that was explored was how exercising at the CrossFit gym impacts the participant's feelings of vitality and an integrated self. As expected, the findings of this study substantiates significant previous research that exercise can both alleviate the symptoms of pre-existing mental state, like anxiety and depression (North, 1990; Petruzzello et al., 1991; Craft & Landers, 1998; Mota-Pereira et a., 2011; Weyerer & Kupfer 1994), and can bolster pre-existing wellness, by enhancing more abstract constructs such as self-esteem and well-being (McAuley, 1994). Every participant in the current study reported some

experience of improved self-esteem, improved mood and increased feelings of empowerment. Three participants in the study specifically spoke about how going to CrossFit has alleviated their anxiety and depression. One participant attributed her ability to cease taking her psychiatric medication to regularly attending CrossFit. These results reflected the findings of the literature review in which McAuley (1994) identifies a positive correlation between exercise and self-esteem, self-efficacy, psychological well-being, and cognitive functioning. He also found a negative correlation between exercise and anxiety, stress and depression (McAuley, 1994). The findings of the present study also coincided with the results of one of the only published qualitative report exploring this topic, in which Daley et al. (2008) surveyed the experiences of adolescents participating in exercise therapy. This study stated participants reported feeling more energetic during and after exercise, than before, which is supported by the reports of the women interviewed in the present research. In Daley et al. (2008) many participants reported feeling happy/happier and expressed feeling better about themselves as individuals after the intervention, which was also substantiated by the current research.

### **Community Support and Encouragement**

Also noteworthy was how important the community support, friendships, and team dynamic was for the women interviewed. Every single participant discussed that relationships were a significant part of her experience at her CrossFit gym without a direct question inquiring about this. This theme corresponds with Self Psychology's emphasis on the importance of relationships and empathy. Community support and encouragement is related to participants' experience of mirroring, twinship and idealization but is worth a separate examination.

The present findings coincide with the prior empirical research. For example, North et al.'s (1990) narrative and meta-analytic review found that one of the predominant ways in which

exercise combated depression was by increasing people's interactions with others (North et al. 1990). Another qualitative study by Faulkner & Sparkes (1999) attributed the benefit to exercise providing participants with distraction and social interaction (Faulkner & Sparkes, 1999).

### **Motivation/Accountability/Competition**

Several themes emerged from my interviews that are less integral to the Self Psychology framework but are still significant. One of those themes was the importance of the motivation, accountability, and competition that women experience as fundamental to their physical and emotional growth at their CrossFit gym. This was an unanticipated but plausible finding. It was interesting that women reported valuing the experience of a healthy balance of competition, stating that too much is stressful and overwhelming but not enough is boring and discouraging. This description is quite reminiscent of Self Psychology's description of people's need for a healthy balance of empathic attunement and failures.

### **Gender Equality Not Experienced in Other Gym Settings**

Another theme that emerged from the data was female participants' perceiving an experience of gender equality at their CrossFit gyms that they had not experienced in other gym settings. This finding was also not directly inquired about, anticipated or integral to Self Psychology. Again, there have been no empirical studies that focused on CrossFit as the exercise modality, so while it is challenging to relate this finding to previous literature, this is an opportunity for further research.

### **Opportunities for Further Research**

The most obvious area for further research would be to perform a parallel study that explores men's experience of socially supported exercise, such as CrossFit, through a Self Psychology framework. There are numerous other potential areas for future studies. First, the

racial diversity of this study was limited so further research with a more racially diverse sample of participants would be very helpful. There could also be further research focusing on other exercise programs that are socially supported, like exercise classes or adult recreational sports. Another area that might prove interesting is how the experience of gender equality while exercising impacts women. Additionally, this was an exploratory, qualitative piece of research. So further study could involve more quantitative methods and yield different information.

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

The findings of this study have several implications for social work practice. Many in the field have already proposed that service providers must expand their thinking beyond exclusively the internal or cognitive experiences of clients. The findings of this study support the view that social workers might improve their ability to use interventions that incorporate clients' bodies and relationships. Overall, this set of findings suggests that socially supported exercise can be a significant and positive experience for people's physical and emotional health. This kind of intervention may be particularly helpful for women. Socially supported exercise can also be beneficial for individuals who are unable to or do not wish to use psychiatric medication. It can also be useful for folks who may be socially isolated in other areas of their lives. Finally, this could be a helpful intervention for individuals who are uncertain about how to exercise or have physical limitations and would benefit from others around them modeling for them and encouraging them.

One objective of this study was to contribute to the understanding of how socially supported exercise can help some women grow emotionally, physically and socially. This study aimed to provide an opportunity for women to reflect upon and articulate what about this significant experience is helpful to them. Several participants articulated that CrossFit has



become a significant and transformative part of their life and self-care, but were also eager to hear the results of this research to help them better understand what about it has been so helpful. The findings may enhance social work practice by contributing to future mental health interventions for women. Extending beyond women and CrossFit, this study will suggest themes that apply to social work practice with a diverse range of practices and communities.

Another main goal of this study was to explore alternative treatments for mental illness and enhancers of health that are less harmful and even have positive side effects. Due to the significantly positive response of participants regarding the presence of mirroring, twinship, and idealization in their CrossFit gyms, it appears that this could be one source of wellness promotion for women, and possibly both genders. All twenty-seven women interviewed in this study also reported that exercising in their CrossFit gyms positively impacted their feelings of vitality in some way. While those interviewed were more likely to have had a positive experience with CrossFit due to their sustained attendance and willingness to participate in a research project about CrossFit, it is still notable that so many folks had this experience at all. So while we cannot conclude that this treatment would be beneficial for all people or all women, it most certainly is helpful to some. Exercise can be utilized as both a treatment to alleviate already present mental issues, such as anxiety or depression, and as a preventative measure to strengthen people's positive mood, cohesive sense of self, and feelings of vitality. Based on the literature and the findings of this study, exercise that is in a supportive group context could be particularly helpful for individuals, especially women, looking to improve their physical and emotional well-being.

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## Appendix A

### Human Subjects Review Board Approval Letter



School for Social Work  
Smith College  
Northampton, Massachusetts 01063  
T (413) 585-7950 F (413) 585-7994

January 29, 2013

Sarah Gillio

Dear Sarah,

Thank you for making all the requested changes to your Human Subjects Review application. Your project is now approved by the Human Subjects Review Committee.

*Please note the following requirements:*

**Consent Forms:** All subjects should be given a copy of the consent form.

**Maintaining Data:** You must retain all data and other documents for at least three (3) years past completion of the research activity.

*In addition, these requirements may also be applicable:*

**Amendments:** If you wish to change any aspect of the study (such as design, procedures, consent forms or subject population), please submit these changes to the Committee.

**Renewal:** You are required to apply for renewal of approval every year for as long as the study is active.

**Completion:** You are required to notify the Chair of the Human Subjects Review Committee when your study is completed (data collection finished). This requirement is met by completion of the thesis project during the Third Summer.

(good luck with your project.)

Sincerely,

A handwritten signature in cursive script that reads 'Marsha Kline Pruett' followed by a flourish.

Marsha Kline Pruett, M.S., Ph.D., M.S.L.  
Vice Chair, Human Subjects Review Committee

CC: Roger Miller, Research Advisor

## **Appendix B**

### **Recruitment Material**

The following will be used for Pioneer Valley CrossFit's Facebook Page, Blog and on a printed poster that will be hung in the gym next to the office and front door.

*Want to help out a fellow PVCF member and talk about your experience at CrossFit? I am looking for women to interview for my masters thesis for Smith College School for Social Work. My project is exploring women's experience of social support while exercising and it's influence on mental health and wellbeing. I'd love to have a variety of participants (i.e. age, race, athletic ability) to make my research more authentic and compelling. Your part will take about 30 minutes. If you are at all interested, have any questions or would like to set up an interview time, please call, email or find me in the gym. Looking forward to hearing from you!*

*Sarah Gillio*

*Cell phone: XXX-XXX-XXXX*

*Email: XXXXXXXX@smith.edu*

## **Appendix C**

### **Informed Consent Form**

Dear Participant,

My name is Sarah Gillio and I am a graduate student at the Smith College School for Social Work. I am conducting a study of women in CrossFit gyms to explore the relationship between exercise, social support, and sense of self in women. Data obtained in this study will be used in my master's thesis and for possible future presentation and publication.

In order to participate in this study, you must be a woman, age 18 or older at time of interview, English language speaker, ambulatory, participated in CrossFit exercise program for at least 60 days, and plan to continue. Participation in this study will involve answering questions about your experience exercising in this group. I will ask you to provide information about yourself such as your age, race, how long you've been CrossFitting and what your plans are to continue. The interview will be conducted privately, in person, will be tape-recorded, and will last about thirty minutes. I will transcribe the tape-recorded interview. If our interview takes place at Pioneer Valley CrossFit, I cannot ensure that your participation in this study will be confidential as other Pioneer Valley CrossFit gym members may see us talking before or after the interview.

Your participation in this study will provide important information about maintaining and improving mental health in women. Questions will ask you to think about positive and negative experiences so there is potential that negative feelings will be evoked. Attached to this letter is a list of mental health resources for you. I would love to have a variety of participants (i.e. age,



race, athletic ability) to make my research more authentic and compelling. There will be no financial or other compensation for your participation.

Your participation in this study is voluntary and participants may refuse to answer any question. You may withdraw from the study at any time, simply by telling me that they wish to do so. After the data is analyzed starting April 2013, you will be unable to withdraw. Should you withdraw before that point, all materials related to you will be immediately destroyed. Consistent with Federal regulations, all data will be kept in a secure location for three years after which point it will be destroyed. Smith faculty and advisors to this study will have access to the data. This data will include a transcript of the interview, but no identifying information.

If you have any questions or concerns about your rights or about any aspect of the study, please email me at XXXXX@smith.edu, call me at XXX-XXX-XXXXX or call the Chair of the Smith College School for Social Work Human Subjects Review Committee at (413) 585 – 7974.

**BY SIGNING THIS LETTER, YOU ARE INDICATING THAT YOU HAVE READ AND UNDERSTAND THE ABOVE INFORMATION AND THAT YOU HAVE HAD THE OPPORTUNITY TO ASK QUESTIONS ABOUT THE STUDY, YOUR PARTICIPATION, AND YOUR RIGHTS AND THAT YOU AGREE TO PARTICIPATE IN THE STUDY.**

Thank you! Please keep a copy of this form for your own records.

---

Participant Signature Date

---

Researcher Signature Date

## Appendix D

### Interview Guide

#### Demographics Questions:

What is your age? \_\_\_\_\_

What race best describes you? \_\_\_\_\_

What is the name and location of your gym? \_\_\_\_\_

How long have you been a member of this CrossFit gym?

2-6 months                  6-12 months                  1-2 years                  2 or more years

How long have you been CrossFitting?

2-6 months                  6-12 months                  1-2 years                  2 or more years

What athletic ability best describes you?

Un-trained                  Novice                  Intermediate                  Advanced                  Elite

Is anyone in your immediate family or household a member of this gym? \_\_\_\_\_

Is anyone in your immediate family or household that CrossFits at another gym?  
\_\_\_\_\_

#### Qualitative Questions:

1. Could you tell me about what influenced you to join your CrossFit gym?
  - o Describe what you've found to be the difference between exercising in this context and exercising in another context?
2. Could you describe ways in which you've felt special or unique at your CrossFit gym?
  - o How often would you estimate you have that feeling?
3. Could you describe ways in which you have had experiences of looking to another person at your CrossFit gym as a role model?
  - a. How often would you estimate you have that feeling?
4. Could you describe ways in which you've felt similar to others in your CrossFit gym?
  - a. How often would you estimate you have that feeling?

5. Could you tell me about how exercising in this context impacts your feelings of vitality? (energy, vigor, liveliness)
6. Now think about being a woman who CrossFits. Could you describe how that experience has been for you?
  6. Could you describe experiences in which you haven't felt special or validated at CrossFit?
    - a. How often would you estimate you have that feeling?
  7. Could you describe experiences when you haven't felt like you had someone to look to as a role model at CrossFit?
    - a. How often would you estimate you have that feeling?
  8. Could you describe experiences when you haven't felt similar to others at Crossfit?
    - a. How often would you estimate you have that feeling?
  9. Could you describe experiences when you've felt like exercising in this context has negatively impacted your vitality or wellbeing?
10. Are there any other ways in which exercising in the group impacts your overall experience?