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The Relationship Between Sexual Objectification, Body Image, Activity Monitoring, and Compulsive Exercise

Christina Tuning
ctuning08@georgefox.edu

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The Relationship Between Sexual Objectification, Body Image,
Activity Monitoring, and Compulsive Exercise

by

Christina Weiss Tuning

Presented to the Faculty of the
Graduate Department of Clinical Psychology

George Fox University

In partial fulfillment

Of the requirements for the degree of

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In Clinical Psychology

Newberg Oregon

April 20, 2016

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Compulsive Exercise

By

Christina W. Tuning

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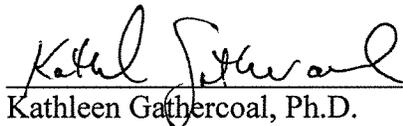
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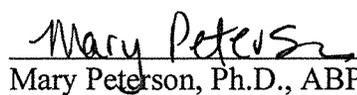
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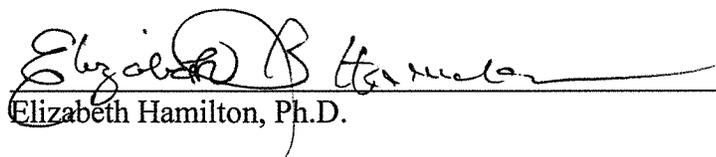
as a Dissertation for the PsyD degree

Signatures:


Kathleen Gathercoal, Ph.D.

Members:


Mary Peterson, Ph.D., ABPP


Elizabeth Hamilton, Ph.D.

Date: April 20, 2016

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Christina Weiss Tuning
Graduate Department of Clinical Psychology at
George Fox University
Newberg, Oregon

Abstract

The purpose of this study was to look at the relationship between sexual objectification, body image, eating disorder symptomatology, activity monitoring, and compulsive exercise. Objectification Theory provides a framework for understanding a woman's experience of the culturally established ideal body, which in Western cultures has become increasingly thin. As women internalize the thin ideal, their experience of self-worth and body image can be impacted and can lead to efforts to control their appearance including diet and exercise. While exercise has been consistently shown to have health benefits, little has been said about unhealthy levels of exercise. Compulsive exercise in particular is concerning due to its correlation with eating disorders. Additionally, developments in self-monitoring tools, such as accelerometers, provide immediate feedback about exercise, which might lead to increases in compulsive exercise.

Participants in this study were college women who were enrolled in a fitness class. They responded to measures of sexual objectification, body image, eating disorder symptoms, and

compulsive exercise at the beginning and end of a required semester-long fitness class that involved self-monitoring and the use of fitness trackers. Results revealed that, of the variables measured, body shame was the only significant predictor of compulsive exercise. Analysis also indicated a relationship between sexual objectification and body image. The addition of body shame in the construct of compulsive exercise is significant because of the relationship between eating disorders and compulsive exercise. Sexual objectification can increase body shame, which in turn is a risk factor for the development of compulsive exercise, and compulsive exercise is a known precursor to the development of eating disorders. This information provides additional insight into the complex mechanism of compulsive exercise and can inform professionals working with young woman who could be at risk for developing more severe eating pathology.

Key Words: Sexual Objectification, Accelerometer, Compulsive Exercise, Body Image, Eating Disorder

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Chapter 1

Introduction

Women are bombarded daily with messages about beauty, gender roles, and success. While the specific qualities that constitute the ideal woman can vary from culture to culture (Owen & Spencer, 2013), the struggle to obtain these features remains. Women experience significant pressure to be beautiful, which in Western nations is defined primarily by body shape and size, yet few ever truly feel beautiful. This emphasis on the body has become increasingly problematic over the course of the 20th Century as the ideal body has shifted from a healthy Body Mass Index (BMI) of 27-30 to an ideal BMI of 18.5-24.9 (Owen & Spencer, 2013). As a result, women spend countless hours and dollars on weight loss, beauty products, gym memberships, and anything that promises to help achieve this ideal appearance.

Concurrent with the development of this definition of beauty has been the growth of media and advertisements, which have become the primary avenues through which Western beauty standards are communicated. Currently most models weigh approximately 15% less than is healthy (Owen & Spencer, 2013), and their images are digitally altered to remove blemishes and to enhance their figures to be as thin and curvy as possible. As a result, the ideal female form is practically impossible to attain, even for the models themselves, with only approximately 1 in 40,000 women meeting the standards (Fredrickson & Roberts, 1997), and more recent estimates arguing that less than 5% of the American population meeting the thin-ideal standard (Martins, Williams, Harrison, & Ratan, 2009).

Additionally, media is becoming increasingly prevalent and people of all ages are exposed to it. Society teaches young girls to value appearance and beauty through the media, and these values are carried out through adolescents and adulthood (Smolak, 2004; Vandenberg & Eggermont, 2012). One result is that women live life frustrated and disappointed in themselves for not being able to attain the social definition of beauty, leading to increased rates of body dissatisfaction, dieting and exercise, and possibly more severe forms of disordered eating (Fuller-Tyszkiewicz, et al. 2012; Homan, 2010). Research is also revealing a dangerous link between media exposure and increased rates of various mental and physical disorders including eating disorders, depression, addictive exercise, and anxiety (Vandenberg & Eggermont, 2012). This relationship between media and a woman's experience is complicated and profound.

Objectification Theory, as discussed below, is one of the primary theories that attempts to explain the relationship between media and how women view themselves (Fredrickson & Roberts, 1997).

Objectification Theory

Objectification Theory, developed by Fredrickson and Roberts (1997), was originally developed to understand the female body within its sociocultural context. While the theory was developed to explain the dominant, Western cultural messages relating to appearance and gender, it has since been expanded to apply to diverse populations including sexual minorities, African American women, deaf women, and even men (Moradi, 2010). The theory was developed to explain a woman's experience of the culturally established ideal body, and this discussion begins with gender differences in cultural expectations of beauty.

Objectification Theory (Fredrickson & Roberts, 1997) posits that because the shape of the body is the most obvious distinction between a man and a woman, physical appearance, including body shape, skin tone, hair color and texture, and facial features, receives significantly more attention than do less obvious factors like personality. Further, the theory suggests that the way in which bodies are viewed is also socially influenced and that in Western cultures, men are not only allowed, but also encouraged, to view women as sexual objects (Fredrickson & Roberts, 1997; Weskott, 1986). This phenomenon has become known as sexual objectification and it occurs most predominantly and insidiously through gazing.

Gazing is one of the primary avenues through which women are sexually objectified. Fredrickson and Roberts (1997) found that objectifying gazes typically play out in three different arenas: interpersonal encounters, media depictions of such encounters, and visual media emphasizing bodies and specific body parts. With regard to interpersonal encounters, women are gazed at more than men and this gazing is frequently accompanied by sexually evaluative commentaries. These encounters are often portrayed through media and advertisements, which frequently show men staring at, or monitoring, their female counterpart. Finally, visual media is arguably the most insidious manner in which the objectifying gaze permeates Western culture. Typically, the media focuses on women's bodies rather than facial details, and frequently will portray dismembered women, eliminating the head and focusing entirely on the female body (Fredrickson & Roberts, 1997).

Components of sexual objectification. Objectification theory proposes three interrelated components of sexual objectification: self-objectification, internalization, and body surveillance (Vandenbosch & Eggermont, 2012). Self-objectification results when women internalize the

observer's perspective (Fredrickson & Roberts, 1997; Vandebosch & Eggermont, 2012).

Through personal experience and the messages communicated through media about beauty and women's roles, women learn that their value lies in their bodies. The way a woman is treated in Western society relies largely on her appearance, creating a strong link between a woman's personal experience of self-worth and her physical appearance (Fredrickson & Robberts, 1997). As a result, women have learned that they need to be constantly checking their appearance, trying to see themselves as others see them, so they can have some control over how they are viewed and treated. A woman's concern with her own appearance is thus likely rooted more in her desire to control how she will be treated than any vain or self-centered tendencies. The cost, however, is that women learn to view themselves as objects and they risk losing sight of their internal attributes and personalities (Vandebosch & Eggermont, 2012).

The second component of objectification is internalization (Vandebosch & Eggermont, 2012). Western culture communicates values and beauty ideals through media, and the most prevalent message is that women are to be viewed and valued for their physical attributes. Advertisements, for example, emphasize women's bodies, often removing their heads or limbs so that the emphasis is solely on their torso features (Fredrickson & Roberts, 1997). These body parts are then typically aligned with sexually implicit gazes from men, communicating to men that they should look at women in these ways and telling women that their worth and power is rooted in their physical appearance. The more women consume sexually objectifying television, fashion magazines, and social networking sites, the more they are likely to internalize these messages (Vandebosch & Eggermont, 2012). Life experience also reinforces internalization because women who meet society's definition of beauty are treated preferentially, creating

significant motivation for women to meet the cultural standard of beauty. For example, women deemed to be beautiful are more likely to be popular, have more dating and marriage opportunities, have greater social mobility, more educational opportunities, and higher incomes (Fredrickson & Robberts, 1997).

The third component of the theory is body surveillance. Objectification theory argues that the more women internalize society's messages and view themselves as objects, the more they will engage in body surveillance, or the behavior of monitoring their bodies (Vandenbosch & Eggermont, 2012). Body surveillance can be cognitive or behavioral in nature (Calogero, 2010; Vandenbosch & Eggermont, 2012). Cognitive body surveillance involves the mental development of body image concepts, while behavioral body surveillance can lead to dieting, exercise, surgeries, and even pathological eating disorders (Calogero, 2010).

Sexual objectification models. Self-objectification, body shame, and body surveillance include cognitive and behavioral components. The Dual Pathway model and the Tripartite Influence model are two different approaches to understanding the relationship between these cognitive and behavioral factors. The Dual Pathway model, proposed by Stice and Agras (1999), argues that the perceived pressure to be thin leads to the internalization of society's ideal body, which in turn leads to body dissatisfaction, dieting, and negative affect, and can end in eating pathology. The Tripartite Influence model (Thompson, Guarda, Heinberg, Berg, & Roehrb, 2004), on the other hand, suggests that women internalize the cultural standards of attractiveness and increase self-comparison to other women. This results in the translation of family, peer, and media pressures to be thin and attractive into body image problems and eating disturbances. Both models provide valuable insight into the way in which eating pathology can occur.

Sexual objectification and eating disorders. The relationship between sexual objectification and eating pathology has been consistently supported in eating disorder literature (Moradi, Dirks, & Matteson, 2005). Noll and Fredrickson (1998) found correlations between self-objectification, body shame, and eating disorder symptomatology in their research on college age women. Their research found that women with higher levels of self-objectification had greater body shame, which in turn was related to greater eating disorder symptomatology. These findings were corroborated in a more recent study conducted by Moradi, Dirks, and Matteson (2005), which found positive correlations between internalization of a culture's beauty standards, body surveillance, body shame, and eating disorder symptomatology.

In addition to eating pathology, objectification impacts women's experience of body shame, which is often exhibited as feeling fat or out of shape (Noll & Fredrickson, 1998; Silberstein, Striegel-Moore & Rodin, 1987). Western culture has set an impossible ideal standard of beauty and popularized the belief that women can control their bodies (Noll & Fredrickson, 1998). The message communicated to women is that if they are disciplined enough, restrict their eating and work out, they will be able to achieve the ideal figure. While diet and exercise are able to create some change in weight and shape, few diets actually result in lasting change, setting women up for failure. In addition, diets, which are portrayed as a means of alleviating body shame, actually increase it. The result is a vicious cycle of shame: an inability to meet beauty standards leads to weight loss efforts, which frequently fail, resulting in increased shame and further weight loss efforts (Noll & Fredrickson, 1998).

Compulsive Exercise

In conjunction with the Western belief that women can control their bodies are the prevailing messages regarding diet and exercise. Many of these messages target obesity, encouraging individuals to increase exercise and decrease calorie intake (Davis & Kaptein, 2006), and have led to the prevailing wisdom that more exercise is better. While recommendations have been made regarding minimum levels of physical activity per week, little has been said about what constitutes too much exercise. In an annual Review of Public Health (Powell, Paluch, & Blair, 2011), the authors respond to the question “How much exercise?” with the answer “More” or “Some is good, more is better” (p. 360). They go on to say that the only unsafe amount of physical activity is inactivity.

Additionally, a recent study conducted by Arem et al. (2015) found no physical consequence of leisure time physical activity that was 10 or more times the current recommended level of 150-300 minutes of moderate intensity or 75-150 minutes of vigorous-intensity aerobic activity. However, when taken with society’s emphasis on the thin-ideal body and beauty standards, this “more is better” mindset can become dangerous. Yager and O’Dea (2010) note that there has been an increase in public health risk associated with body image concerns and long term costs. One important, yet often overlooked, concern is compulsive exercise.

Excessive exercise is an important issue to address given its relationship with eating disorders, but it is also difficult to define where the line is between healthy and unhealthy exercise. As a result, various terms can be used to refer to this phenomenon of excessive exercise including addictive exercise, compulsive exercise, and driven exercise, and each term carries

with it a particular etiology and connotation (Johnston, Reilly, & Kremer, 2011). One suggestion found in research is that this concept could be most useful when considered on a continuum. De la Torre (1995) proposes three categories of exercise. The first category is the healthy neurotic. These individuals exercise for improvement in their lives and the sense of accomplishment they experience after exercising. The second group is compulsive exercisers. Exercise for these individuals is a means of serving their rigid, compulsive needs through the precise routine of their exercise and the sense of superiority they receive from exercise adherence. The third level of exercise is the addict. Exercise addicts use exercise as a means of regulating their affect and helping them maintain equilibrium in their lives (de la Torre, 1995).

Research conducted by Johnston et al. (2011) supports the argument to view exercise on a continuum. Their research with Caucasian women found that the experience of exercise could gradually shift, becoming more rigid and rule-bound with time, and ultimately becoming the focus of an individual's life and means of dealing with emotions. This is corroborated by de Coverley Veale (1987) who suggested that exercise dependence be viewed on a continuum with some people experiencing a preoccupation with exercise while others overemphasize it and use it as a means of control and identity. The present study will focus on compulsive exercise, which falls in the intermediate level of the exercise continuum.

Additionally, the concepts of compulsive exercise and exercise addictions are becoming more accepted in professional realms. The *Diagnostic and Statistical Manual of Mental Disorders* 5th Edition (American Psychiatric Association, 2013) is shifting away from substance-induced dependence disorders to include behavioral elements of the addictive process (Villega et al., 2011). Additionally, features of substance-induced addictions, like tolerance, withdrawal

symptoms, loss of control, excessive time spent in the activity necessary to obtain the desired substance/exercise, conflicts with social, occupational, or recreational activities, and continuance, are being found in exercise addictions (Villella et al., 2011; Warner & Griffiths, 2006). Studies have found that individuals with addictive exercise engage in the behavior as a means of coping with their emotions (Warner & Griffiths, 2006). Rates of addictive exercise are notable, occurring at a level similar to that of other problematic behaviors including alcohol and tobacco abuse (Garman, Hayduk, Crider, & Hodel, 2004). Garman et al. (2004) found that 22-25% of a college sample was overcommitted to physical activity. This suggests that exercise can serve as a coping mechanism in similar ways as drugs and alcohol.

Another concern related to exercise addictions is that they are typically viewed in a positive light, which is not surprising given the cultural emphasis on exercise and the value placed on thinness and beauty. Johnson et al. (2011), for example, found that female participants between the ages of 16 and 77 emphasized the healthiness of excessive exercise and viewed it as a good addiction. This is a particularly dangerous view due to the relationship between eating disorders and exercise addictions, which often co-occur (Garman et al., 2004), and the odds of being diagnosed with an eating disorder are 2.64 times higher for people who engage in excessive exercise (Kostrzewa, Eijkemans, & Kas, 2013).

Accelerometers

Self-monitoring, or the process of setting goals and monitoring progress towards these goals (Mockus et al., 2011), plays an integral role in behavior change (Butryn, Phelan, Hill, & Wing, 2007). It is in this stage of behavior modification that actions become less automatic and more intentional (Karoly, 1993), and as awareness increases so does the ability to make changes.

Research has found that self-monitoring techniques are beneficial for changing a variety of behaviors including smoking cessation (Bartlett, Sheeran, & Hawley, 2014), stabilizing of blood sugar in diabetics (McAndrew et al., 2013), establishing exercise routines (Bird et al., 2013), and managing weight control (Baker & Kirschenbaum, 1998; Mockus et al., 2011).

Self-monitoring plays a notably significant role in changing diet and exercise behaviors. Butryn et al. (2007) confirmed previous research suggesting the importance of self-monitoring weight for successful weight loss and maintenance, finding that 36% of people with successful weight loss weighed themselves at least once a day and 79% weighed themselves weekly. A meta-analysis conducted by Conn, Isaramalai, Banks-Wallace, Ulbrich, and Cochran (2002) found that self-monitoring techniques including records of frequency and quantity of physical activity, effectively increased awareness of behaviors and in turn resulted in more physical activity.

As technology has advanced, so have available self-monitoring tools, which can now be found on cell phones, websites, and accelerometers, making them portable and easily accessible. Research has found online self-monitoring to be correlated with successful weight loss similar to paper and pencil recording (Krukowski, Harvey-Berino, Bursac, Ashikaga, & West, 2013). Accelerometers are a unique self-monitoring tool in that they are able to detect acceleration and movement in one, two, or three directions (Van Remoortel et al., 2012), enabling them to record the quantity and intensity of a variety of physical activities and movements throughout the day. The most recent development are integrated multisensory systems, like the Nike Fuelband and Jawbone products, which combine the accelerometer with other sensors that capture physiological responses to physical activity including heart rate and skin temperature. These

devices provide immediate, comprehensive feedback to users and record daily, weekly, and monthly activity. The goal of these tools is optimize physical activity assessment and provide more objective, reliable data than can be obtained through self-report measures (Bonomi & Westerterp, 2012). The risk, however, is that this instant feedback could feed addictive exercise tendencies and cause individuals to become more compulsive in their exercise patterns.

Purpose of this Study

The purpose of this study, therefore, was to look at the relationships between sexual objectification, body image, eating disordered symptomatology, activity tracking, and compulsive exercise. It was hypothesized that individuals with higher scores of sexual objectification and those who track their activity would be more likely to become compulsive in their exercise. Additionally, it was hypothesized that individuals with poorer body image and eating disorder symptomatology would be at greater risk of becoming compulsive in their exercise behaviors. Finally, it was hypothesized that those with higher scores of sexual objectification would have greater discrepancy in their body image.

Chapter 2

Methods

Participants

Incoming Freshman students at George Fox University, were recruited to participate in this study. Participants were women between the ages of 17 and 25. Students were randomly assigned into one of two groups. Those students enrolled in the Life Long Fitness course in the Fall of 2014 ($n = 137$) served as the control group who learned about nutrition but did not track their activity. The experimental group consisted of women ($n = 108$) enrolled in the Life Long Fitness course in the Spring of 2015 who learned about nutrition and were required to track their physical activity with a Jawbone activity tracker. Participants were screened for eating disorder symptoms and those who score a 2 or higher on the *SCOFF* Questionnaire were referred to the Health and Counseling Center. In addition to age, gender, and ethnicity, year in school, current and previous athletic involvement, frequency and duration of physical activity per week, and time spent on Facebook were also reported.

Instruments

Demographics. A survey was developed to gather demographic data. Participants were requested to provide their first and last names, age, and the semester and course section they were enrolled in. Three multiple-choice questions gathered data on gender, year in school, and ethnicity.

The SCOFF Questionnaire. The SCOFF Questionnaire (Morgan, Reid, & Hubert Lacey, 2000), so named as to provide an easy way to remember the questions, was used to screen

for eating disorder symptomology. The SCOFF consists of five yes/no questions that target the core features of anorexia nervosa and bulimia nervosa. The questions are:

1. Do you make yourself **S**ick because you feel uncomfortably full?
2. Do you worry that you have lost **C**ontrol over how much you eat?
3. Have you recently lost more than **O**ne stone (14lb) in a 3-month period?
4. Do you believe yourself to be **F**at when others say you are too thin?
5. Would you say that **F**ood dominates your life?

Items that are marked as a “yes” are scored as one point and scores of two or more indicate a likely diagnosis of anorexia nervosa or bulimia nervosa. Morgan et al. (2000) found the test to have 100% sensitivity and 87.5% specificity for anorexia and bulimia for those who endorse two or more items.

The Compulsive Exercise Test. The Compulsive Exercise Test (CET; Taranis, Touyz, & Meyer, 2011) will be administered to assess for characteristics of compulsive exercise in the participants. The CET consists of 24 likert-scale questions, which participants rate from 0 (*Never True*) through 5 (*Always True*). Factor Analysis revealed 5 factors: avoidance and rule-driven behavior, weight control exercise, mood improvement, lack of exercise enjoyment, and exercise rigidity. In a previous study conducted by Taranis et al. (2011), the CET was found to have good internal consistency (Chronbach’s alpha = .85) and the intercorrelation among subscales was found to be acceptable ranging from .10 to .52. The CET has strong concurrent validity (.62) with the Commitment to Exercise Scale (CES; Davis, Brewer, & Ratusny, 1993), a validated measure of pathological commitment to exercise. The CET also shows strong convergent validity with the Eating Disorder Inventory-2nd Edition (EDI-2; Garner, 1991) total (.47) and the

EDI-2 subscales of Drive for thinness (.53) and Body dissatisfaction (.40). Results also indicate that the CET is strongly related with eating pathology, with subscales revealing greater predictive validity than the CES (Taranis et al., 2011).

The Objectified Body Consciousness Scale. The Objectified Body Consciousness Scale (OBC; McKinley & Hyde, 1996) was administered to measure body surveillance, body shame, and control beliefs. The OBC consists of three subscales, which are composed of Likert-scale questions ranging from strongly agree to strongly disagree, with NA as an additional option if the participant does not believe the question applies to them. *The Surveillance Scale* consists of 8 items and measures the extent to which a woman watches her body and views it as an object. The *Body Shame Scale* consists of 8 items and measures the extent to which a woman believes she is good or bad based on meeting cultural expectations of beauty. The *Control Beliefs Scale* consists of 8 items and measures the extent to which a woman believes she can control her body weight and shape. In a previous study conducted by McKinley and Hyde (1996), internal consistency (α) was found to be moderate to high (Surveillance Scale: .89; Body Shame Scale: .75; Control Beliefs Scale: .72). There were significant correlations between the scales ranging from .16 and .66. Test-retest reliability of the OBC is good with correlations of .79 for Body Surveillance, .79 for Body Shame, and .83 for Control Beliefs.

The Body Image Assessment- Revised. The Body Image Assessment—Revised (*BIA-R*), originally developed by Williamson, Davis, Foreczny, and Blouin (1989), was revised by Beebe, Holmbeck, and Grzeskiewicz (1999). It was administered to measure participants' estimation of their own body size. The BIA-R consists of a randomized string of nine body silhouettes at the top of a piece of paper, ranging from underweight to overweight. Below the

silhouettes are a list of questions in which the participants are asked to indicate which figure fits their cognitive (actual body size), affective (the size one feels on is), and ideal (size one wishes one could be) body sizes. All three questions are presented on the same piece of paper. Test-retest reliability for cognitive, affective, and desired components is moderate over a 2-week period (.74; .79; .70 respectively).

Accelerometer. Students enrolled in the Spring of 2015 were required to purchase a Jawbone Up Move as part of their Health and Fitness class. Jawbones are one of the new accelerometer products that track physical activity including steps, distance, calories, stairs climbed, and active minutes as well as sleep patterns and weight. Users can also input food intake through the online tools to provide a more complete view of health and fitness. The Jawbone product also syncs with mobile devices to provide immediate and comprehensive feedback. The Jawbone was used to measure participants' physical activity.

Procedure

Participants were asked to sign an informed consent (see Appendix A) at the beginning of the study. Students enrolled in the Life Long Fitness course in the Fall semester of 2014 constituted the control group; the experimental group consisted of students enrolled in this course Spring Semester of 2015 and learned about nutrition as part of the course and were required to track their physical activity with the Jawbone Up Move. All students enrolled in the Life Long Fitness course in the Fall semester were given a 4-day window during the first week of class in which to take the demographic survey (see Appendix B), the *SCOFF Questionnaire* (see Appendix C), *The Compulsive Exercise Test* (see Appendix D), *The Objectified Body Consciousness Scale* (see Appendix E), and the *Body Image Assessment- Revised* (see Appendix

F) online. Individuals who scored a 2 or higher on the *SCOFF Questionnaire* were referred to the Health and Counseling Center for further evaluation via email. During the semester, students in the Health and Fitness course completed classwork pertaining to healthy nutrition and exercise and engaged in exercise activities as required by the course. At the end of the semester the *Compulsive Exercise Test* was re-administered to the participants. This procedure was repeated in the Spring semester of 2015 with new students enrolled in the Health and Fitness class. These students engaged in coursework addressing topics of nutrition and exercise and were required to track their physical activity with the Jawbone Up Move and submit weekly activity reports to their professor. The study lasted for the course of the 2014-2015 school year.

Chapter 3

Results

Hypothesis 1

Hypothesis 1 states that women with higher scores of sexual objectification and those who track their activity will be more likely to become compulsive in their exercise.

Descriptive statistics. Descriptive statistics, including internal consistency, mean, standard deviation, skew and kurtosis were computed for each measure. Chronbach's Alpha for the Compulsive Exercise Test (CET) pre and post are very high, falling between .86 and .89. Objectified Body Consciousness (OBC) scores were not calculated because the total score for the scale was not used in the analysis, however Chronbach's Alpha for subscales range from .70 to .82.

Skew and Kurtosis were within normal limits on the CET Pre, CET Post, Body Surveillance, Body Shame, and Body Control, and as a result, correlations are likely be an accurate representation of the relationship.

Table 1*Hypothesis 1 Descriptive Statistics*

	Chronbach's Alpha	Mean	Standard Deviation	Skew	Kurtosis
CET Pre	0.86	17.07	3.09	0.14	-0.58
CET Post	0.89	17.14	3.30	-0.03	-0.40
OBC Total	0.76				
B-Surveillance	0.82	4.18	1.05	-0.11	-0.42
Body Shame	0.82	3.05	1.04	0.15	-0.61
Body Control	0.70	4.91	0.84	-0.06	-0.47

Correlations. Correlations among scales are shown in Table 2. Body Shame was positively correlated with the post Compulsive Exercise Test ($r = .42, p < .01$). Additionally, the Body Shame scale was correlated with the other OBC scales. Specifically, Body Shame was positively correlated with Body Surveillance ($r = .43, p < .01$) and negatively correlated with Body Control ($r = -.32, p < .01$). Semester had a small correlation with the post Compulsive Exercise Test ($r = -.12, p > .05$), indicating that higher scores were more likely in the semester without monitoring.

Table 2*Hypothesis 1 Scale Correlations*

Scale	CET Post	Semester	Body Surveillance	Body Shame
Semester	-0.12			
Body Surveillance	0.05	-0.08		
Body Shame	0.42**	0.02	0.44**	
Body Control	0.03	-0.04	-0.15	-0.33**

** Correlation is significant at the .01 level

* Correlation is significant at the .05 level

Regression. A linear regression was conducted to determine which independent variables (Semester, Body Surveillance, Body Shame, and Body Control) were the predictors of compulsive exercise. The predictors were entered into the equation simultaneously. Data screening revealed that none of the cases qualified as outliers and as such, none were eliminated. Regression results indicate an overall model with one predictor, Body Shame, that significantly predicts compulsive exercise, $R^2 = .25$, $R^2_{adj} = .22$, $F(4, 81) = 6.85$, $p < 0.001$. This model accounted for 25% of variance in compulsive exercise. A summary of the B-weights and Beta-weights is presented in Table 3. B-weights are reported in the units of measurement of the original variable, while Beta-weights are standardized, i.e. they are unit-free. This means that Beta-weights can be used to compare the relative contributions of each independent variable to the regression equation. Body shame has the largest Beta-weight and is also the only predictor that has a significant *T*-test.

Table 3*Hypothesis 1 Linear Regression Summary Statistics.*

Model	B	Std. Error	Beta	t	Sig.
(Constant)	11.98	2.39		5.01	.000
Semester	-0.91	0.64	-0.14	-1.43	0.16
B-Surveillance	-0.53	0.32	-0.18	-1.67	0.10
Body Shame	1.57	0.31	0.57	5.05	0.00
Body Control	0.63	0.35	0.18	1.81	0.07

*Predictors: (Constant), Semester, Body Surveillance, Body Shame, and Body Control

Hypothesis 2

Hypothesis 2 states that that individuals with poorer body image and eating disorder symptomatology will be at greater risk of becoming compulsive in their exercise behaviors.

Descriptive statistics. Descriptive statistics, including mean, standard deviation, skew, and kurtosis were computed for each measure. Skew and Kurtosis were within normal limits on Cognitive Body Size and Affective Body Size, as well as on the difference between Cognitive-Ideal, and Affective-Ideal body sizes. Skew and Kurtosis were elevated on the SCOFF questionnaire, indicating that most participants reported no eating disorder symptomatology. Skew was also significant on Ideal Body Size, suggesting that most individuals agree that they would prefer to be thin, and the discrepancy between Cognitive-Affective Body Size, which indicates that most participants perceive their body size to be larger than it actually is.

Table 4*Hypothesis 2 Descriptive Statistics*

	Mean	Standard Deviation	Skew	Kurtosis
SCOFF	0.82	1.16	1.45	1.48
Cognitive Body Size	25.14	5.17	0.39	-0.41
Affective Body Size	27.32	6.05	0.05	-0.70
Ideal Body Size	22.81	4.22	0.51	0.58
Cognitive-Affective Disc.	-2.18	3.79	-0.46	0.32
Cognitive-Ideal Disc.	2.33	4.44	0.16	0.32
Affective-Ideal Disc.	4.51	5.78	0.05	-0.20

Correlations. Correlations among scales were computed and are shown in Table 5. The SCOFF was positively correlated with Affective Body Size ($r = .31, p < .01$) and Affective-Ideal Discrepancy ($r = .34, p < .01$), suggesting that those whose affective experience is that they have a large body size, and those who have a greater discrepancy between how large they feel they are and the size they wish they were, will have higher SCOFF scores. The SCOFF was negatively correlated with Cognitive-Affective Discrepancy ($r = -.35, p < .01$) indicating that as the discrepancy between one's known body size and felt body size increase, SCOFF totals will decrease.

Cognitive Body Size was positively correlated with the other BIA-R scales of Affective Body Size ($r = .78, p < .01$) and Ideal Body Size ($r = .57, p < .01$), which suggests that as an individual's known body size increases, so do the affective and ideal body sizes. Cognitive Body

Size was also positively correlated with Cognitive-Ideal Discrepancy ($r = .62, p < .01$) and Affective-Ideal Discrepancy ($r = .41, p < .01$). This suggests that as one's actual BMI increases so does the discrepancy between known and ideal body size and felt and ideal body size.

Affective Body Size was also positively correlated with Ideal Body Size ($r = .41, p < .01$), Cognitive-Ideal Discrepancy ($r = .52, p < .01$), and Affective-Ideal Discrepancy ($r = .75, p < .01$), indicating that as felt body size increases, the ideal body size also increases as do the discrepancies between actual and ideal body size and felt and ideal body size.

Ideal Body Size was negatively correlated with Cognitive-Ideal Discrepancy ($r = -.29, p < .01$) and Affective-Ideal Discrepancy ($r = -.30, p < .01$). Cognitive-Affective Discrepancy was negatively correlated with Affective-Ideal Discrepancy ($r = -.64, p < .01$) while Cognitive-Ideal Discrepancy was positively correlated with Affective-Ideal Discrepancy ($r = .76, p < .01$).

Table 5

Hypothesis 2 Scale Correlations

	Semester	SCOFF	Cognitive Body Size	Affective Body Size	Ideal Body Size	Cognitive -Affective Disc.	Cognitive -Ideal Disc.
SCOFF	--						
Cognitive Body Size	-0.09	0.11					
Affective Body Size	-0.10	0.31**	0.78**				
Ideal Body Size	-0.07	-0.04	0.57**	0.41**			
Cognitive-Affective Disc.	0.04	-0.35**	0.11	-0.53**	0.12		
Cognitive-Ideal Disc.	-0.03	0.15	0.62**	0.52**	-0.29**	0.02	
Affective-Ideal Disc.	-0.05	0.34**	0.41**	0.75**	-0.30**	-0.64**	0.76**

** Correlation is significant at the 0.01 level

--Correlation could not be calculated

Regression. A linear regression was conducted to determine which independent variables (Semester, SCOFF, Cognitive Body Size, Affective Body Size, Ideal Body Size, Cognitive-Affective Discrepancy, Cognitive-Ideal Discrepancy, and Affective-Ideal Discrepancy) were predictors of compulsive exercise. The predictors were entered into the equation simultaneously. Data screening revealed that none of the cases qualified as outliers and as such, no cases were eliminated. Semester was automatically removed from the regression equation because it did not contribute to compulsive exercise. Affective Body Size, Ideal Body Size and Cognitive-Ideal Discrepancy were also excluded from the regression equation. Regression results indicate an overall model in which no predictors contribute significantly to compulsive exercise, $R^2 = .18$, $R^2_{\text{adj}} = .04$, $F(4, 24) = 1.32$, $p = .29$. A summary of the B-weights and Beta-weights are presented in Table 6. None of the independent variables predicted significant amounts of variance in compulsive exercise.

Table 6

Hypothesis 2 Linear Regression Summary Statistics.

Model	B	Std. Error	Beta	t	Sig.
(Constant)	8.48	4.58		1.85	0.08
SCOFF	-0.05	0.50	-0.02	-0.10	0.92
Actual BMI	0.34	0.18	0.53	1.90	0.07
Cognitive-Affective Disc.	-0.49	0.37	-0.57	-1.32	0.20
Affective-Ideal Disc.	-0.16	0.21	-0.35	-0.78	0.45

*Predictors: (Constant), SCOFF, Actual BMI, Actual-Perceived Disc., and Perceived-Ideal Disc.

Hypothesis 3

Hypothesis 3 states that those with higher scores of sexual objectification will have greater discrepancy in their body image.

Scale correlations. Correlations among Objectified Body Consciousness scales and Body Image Assessment Revised scale discrepancies were computed and are shown in Table 7. Correlational statistics for the body size discrepancy estimates found correlations with Body Surveillance and Body Shame. Body Surveillance negatively correlate with Cognitive-Affective differences ($r = -.20, p < .01$) indicating that as body surveillance increases, the discrepancy between one's actual body size and the size one feels one is decreases. Body Surveillance was positively correlated with Cognitive-Ideal ($r = .15, p < .05$) and Affective-Ideal ($r = .25, p < .01$) body size discrepancies. This suggests that as body surveillance increases, so does the difference between one's actual and ideal body size and one's perceived and ideal body size increases.

Body Shame was found to be negatively correlated with Cognitive-Affective body size ($r = -.25, p < .01$) indicating that as body shame increases, the discrepancy between one's actual and felt body sizes decreases. Conversely, Body Shame was positively correlated with Cognitive-Ideal ($r = .34, p < .01$) and Affective-Ideal ($r = .42, p < .01$) body size differences, indicating that as body shame increases so do the discrepancies between one's actual and ideal body size as well as one's perceived and ideal body size.

Cognitive-Affective discrepancy was found to negatively correlate with Affective-Ideal ($r = -.640, p < .01$) and Cognitive-Ideal was found to positively correlate with Affective-Ideal ($r = .756$). These results indicate that as difference between one's actual and perceived body size increases, the discrepancy between one's perceived and ideal body size decreases. Additionally,

as the discrepancy between one's actual and ideal body size increases, so does the discrepancy between one's perceived and ideal body size.

Table 7

Hypothesis 3 Scale Correlations

Scale	Body Surveillance	Body Shame	Body Control	Cognitive- Affective	Cognitive- Ideal
Body Shame	0.41**				
Body Control	-0.19**	-0.31**			
Cognitive-Affective	-0.20**	-0.25**	0.04		
Cognitive-Ideal	0.15*	0.34**	-0.02	0.02	
Affective-Ideal	0.25**	0.42**	-0.04	-0.64**	0.76**

** Correlation is significant at the 0.01 level

* Correlation is significant at the 0.05 level

Chapter 4

Discussion

Summary

The purpose of this study was to look at the relationships among sexual objectification, body image, eating disordered symptomatology, activity tracking, and compulsive exercise. It was predicted that women with greater levels of sexual objectification and those who tracked their physical activity using an accelerometer would be more likely to become compulsive in their exercise. Activity tracking did not significantly predict the development of compulsive tendencies in exercise. Rather, body shame was the only significant predictor of compulsive exercise. It was also hypothesized that women with poorer body image and higher levels of eating disordered symptomatology would be at greater risk of becoming compulsive in their exercise behaviors. This study found that neither body image nor eating disorder symptoms were significant predictors of compulsive exercise. Finally, it was hypothesized that those with higher scores of sexual objectification would have greater discrepancy in their body image. Present results indicate that higher levels of body shame and body surveillance did result in greater discrepancy between ideal and cognitive body size, as well as ideal and affective body size.

Activity tracking, which was hypothesized to be a primary component to the development of CE, was not found to be a significant predictor. Previous studies have utilized accelerometers as a means of measuring physical activity (Bratland-Sanda et al., 2011) but no known study, thus far, has analyzed whether the use of accelerometers is a risk factor for the development of compulsive exercise. Additionally, this study did not find a relationship between

eating disorder symptomatology and compulsive exercise. This is in contrast with other research that has found that compulsive exercise occurs in approximately 84% of eating disorder patients (Meyer, Taranis, Goodwin, & Haycraft, 2011). The lack of significance in the present study could be due to the small sample size of participants who endorsed significant levels of eating pathology.

The main finding of this study is the role of body shame as a predictor of compulsive exercise. Objectification Theory posits that there is a process through which body shame, body surveillance, and body control develop, and research has provided additional insight into this process. The first step is the internalization of society's ideal body image (Markham, Thompson, & Bowling, 2005). Women in particular are at risk for deriving a positive self-concept and a sense-of-self through their physical appearance (John & Ebbeck, 2008), and whether consciously or unconsciously, sociocultural forces impact the standards to which women compare their bodies (John & Ebbeck, 2008). When a woman accepts the culturally determined thin-ideal as a personal standard but is unable to achieve it, she can experience body shame (Bessenoff & Snow, 2006; Castonguay, Brunet, Ferguson, & Sabastion, 2012; Markham et al., 2005; McKinley, 1998; Noll & Fredrickson, 1998).

Several studies have found that body shame has a major impact on body image dissatisfaction (Duarte, Pinto-Gouveia, Ferreira, & Batista, 2015), which is corroborated by the current study. This study revealed discrepancies between actual-ideal body size and affective-ideal body sizes were positively correlated with body shame and body surveillance (McKinley & Hyde, 1996). This indicates that women who experience greater disparity between their felt and ideal body sizes, the more they are likely to experience body shame and body surveillance.

As a result of sexual objectification, women have been found to engage in body surveillance as a means of avoiding potential negative judgments from those around them (McKinley & Hyde, 1996). Similar to the results of this study, McKinley and Hyde (1996) found that body shame and body surveillance correlated positively with each other, indicating that the more self-surveillance a woman engages in, the more body shame she is likely to experience. The present study also revealed that body shame and body surveillance correlated negatively with body control. Research has found that women who feel they are in control typically experience higher levels of psychological and physical well-being, but as a woman's sense of control decreases she may experience higher levels of stress due to the pressures that result from the internalization of the thin-ideal (McKinley & Hyde, 1996).

Low levels of body control could provide insight into why the present study did not find a significant relationship between body shame and activity monitoring, as one might expect. Activity monitoring may be more harmful for women who believe they have control over their appearance and are more prone to engage in diet and exercise to control their appearance. In contrast, research has found that high body control can promote restricted eating (McKinley & Hyde, 1996). However, for women with higher levels of body shame and surveillance, as well as lower control beliefs, the pressure to be thin in conjunction with the elevated level of stress could potentially lead to negative behaviors like excessive exercise or eating disordered behaviors.

Body shame is particularly significant because it is a predictor of compulsive exercise. In addition to the information previously discussed, research has also found that women will engage in negative behaviors as a means of avoiding the experience of body shame, even if they are content with their weight (Noll & Fredrickson, 1998). Bratland-Sanda et al. (2011) found in their

study that the main explanatory variables for compulsive exercise, in both eating disordered participants and controls, was regulation of negative affect and weekly amount of vigorous physical activity. This study provides additional insight into potential mechanisms of compulsive exercise, though there is still a lot that remains to be discovered about the exact mechanisms of compulsive exercise (Hamer & Jarageorghis, 2007).

Implications

While compulsive exercise in and of itself is not considered a clinical concern, these findings are significant because compulsive exercise is a clinically significant symptom in many eating disorders. It is often one of the first symptoms to appear (Goodwin, Haycraft, & Meyer, 2014) and one of the last to subside (Meyer et al., 2011). It is a risk factor for relapse in anorexia, is associated with greater severity in eating disordered symptoms, dietary restraint, body image concerns, drive for thinness, body dissatisfaction, and is one of two variables associated with chronic outcomes (Meyer et al., 2011). Therefore, clinicians working with women suffering from eating disorders need to be aware of the important relationship between this disorder, compulsive exercise, and body shame. It may be beneficial for these clients to address issues of body shame in addition to the more overt symptoms of eating disorders.

One interesting finding from Bratland-Sanda et al. (2010) was that the intensity of exercise is a more important factor for women with eating disorders than was the duration of exercise. This suggests that the question may not be “how much exercise is too much,” but rather what are the motives behind the exercise and how intense is the exercise that is being engaged in.

A final implication of this study is that it may be important to implement body shame and eating disorder screeners for women who are placed in situations where nutrition and exercise

are the primary focus of discussion, like physical education classes. Women with high levels of body shame would likely benefit from a different approach to these topics, with an emphasis on moderation, health, and mindfulness, as well as possible referral for more clinically concerning eating disorder symptoms.

Limitations

There are several limitations to this study that should be mentioned. First, the data was dependent on who responded to the surveys, which could produce some bias in the information gathered based on who participated. Additionally, there was a small sample size of individuals who endorsed elevated levels of eating disordered symptomatology and body shame, which could have impacted the ability to achieve significance in the sample. Finally, this study worked with college-aged students, which limits the generalizability of these findings to other populations.

Conclusions and Direction for Future Research

In conclusion, this study highlights the importance of body shame with regard to the development of compulsive exercise. Body shame is something many women experience and it is rooted in the discrepancy between a woman's actual body size and the ideal body image that she has come to hold based on society's messages regarding the ideal body. Future research should look at the potential impact of activity tracking with young woman who endorse high levels of body shame, as this tool may increase their propensity to engage in compulsive exercise. Additionally, this study should be expanded to include men, a broad spectrum of ages, and different aspects of diversity, given that these issues can affect individuals of all ages,

genders, and cultural backgrounds. Finally, research should look further into the impact of social media on body shame and compulsive exercise.

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Appendix A

Informed Consent

The purpose of this research is to examine the relationship between men's and women's experiences of their bodies and activity tracking on the development of obsessive exercise. If you choose to participate, you will be asked to fill out a brief demographic survey and four questionnaires. You will be asked to fill out the same questionnaires at the end of the semester and again in the Spring semester of 2015. Signing this informed consent will be considered assent to all of the above, however you may withdraw from the study at any point without consequence. The questionnaires should not require more than half an hour to complete.

All personal information will be kept as confidential as possible. Each participant will be assigned a number and all information will be stored in an encrypted file under this number. Your name will be removed from any documents after the data has been entered. Faculty members will not have access to your data. Data will be entered based on the assigned number code and any identifying information will be excluded.

Potential risks related to this research include potentially experiencing some distress related to questions asking about how you perceive your body. Positive benefits of this research include increased physical activity and improvements in nutrition and calorie intake.

Results will be made available to anyone who is interested in the form of a journal manuscript. If you have any questions or concerns about your participation in this research, you may contact the primary researcher Christina Weiss Tuning at ctuning08@georgefox.edu or 503-351-3570 or Dr. Kathleen Gathercoal at kgatherc@georgefox.edu or at 503-554-2376.

Written Name of Participant

Signature of Participant

Date

Appendix B

Demographic Survey

1. What section fo Life Long Fitness do you attend? _____
2. Name: _____
3. Age: _____
4. Gender:
Male Female
5. Semester: _____
6. Year in School:
 First Year/Freshman
 Second Year/Sophomore
 Third Year/Junior
 Fourth Year/Senior
 Beyond Fourth-Year
7. Height in inches: _____
8. Weight in pounds: _____
9. Ethnicity:
 American Indian/Alaskan Native
 Hispanic
 White, non-Hispanic
 Asian/Pacific Islander
 Black, non-Hispanic

International Student

10. If you are an international student, what country do you come from? _____

11. Are you now or do you anticipate participating in any sports at GFU?

Yes

No

12. If yes, what sport(s)? _____

13. Are you now or do you anticipate participating in intermurals at GFU?

Yes

No

14. Did you participate in sports in High School?

Yes

No

15. If yes, what sport(s)? _____

16. How many minutes per week do you currently spend in moderate to vigorous physical activity? _____

17. How many times do you participate in moderate to vigorous physical activity in one week? _____

18. How many hours per week do you spend on Facebook? _____

Appendix C

SCOFF Questionnaire

Answer “Yes” or “No” to the following questions.

1. Do you make yourself **S**ick because you feel uncomfortably full?
2. Do you worry that you have lost **C**ontrol over how much you eat?
3. Have you recently lost more than **O**ne stone (14lb) in a 3-month period?
4. Do you believe yourself to be **F**at when others say you are too thin?
5. Would you say that **F**ood dominates your life?

Appendix D

Compulsive Exercise Test

Instructions

Listed below are a series of statements regarding exercise. Please read each statement carefully and circle the number that best indicates how true each statement is of you. Please answer all the questions as honestly as you can.

Never True	Rarely True	Sometimes True	Often True	Usually True	Always True	
0	1	2	3	4	5	
1. I feel happier and/or more positive after I exercise.	0	1	2	3	4	5
2. I exercise to improve my appearance.	0	1	2	3	4	5
3. I like my days to be organized and structured of which exercise is just one part.	0	1	2	3	4	5
4. I feel less anxious after I exercise.	0	1	2	3	4	5
5. I find exercise a chore.	0	1	2	3	4	5
6. If I feel I have eaten too much, I will do more exercise.	0	1	2	3	4	5
7. My weekly pattern of exercise is repetitive.	0	1	2	3	4	5
8. I do not exercise to be slim.	0	1	2	3	4	5
9. If I cannot exercise I feel low or depressed.	0	1	2	3	4	5
10. I feel extremely guilty if I miss an exercise session.	0	1	2	3	4	5
11. I usually continue to exercise despite injury or illness, unless I am very ill or too injured.	0	1	2	3	4	5
12. I enjoy exercising.	0	1	2	3	4	5
13. I exercise to burn calories and lose weight.	0	1	2	3	4	5
14. I feel less stressed and/or tense after I exercise.	0	1	2	3	4	5
15. If I miss an exercise session, I will try and make up for it when I next exercise.	0	1	2	3	4	5
16. If I cannot exercise I feel agitated and/or irritable	0	1	2	3	4	5
17. Exercise improves my mood	0	1	2	3	4	5
18. If I cannot exercise, I worry that I will gain weight.	0	1	2	3	4	5
19. I follow a set routine for my exercise sessions e.g. walk or run the same route, particular exercises, same amount of time, and so on.	0	1	2	3	4	5
20. If I cannot exercise I feel angry and/or frustrated.	0	1	2	3	4	5
21. I do not enjoy exercising.	0	1	2	3	4	5
22. I feel like I've let myself down if I miss an exercise session.	0	1	2	3	4	5
23. If I cannot exercise I feel anxious	0	1	2	3	4	5
24. I feel less depressed or low after I exercise.	0	1	2	3	4	5

Appendix E**Objectified Body Consciousness Scale****INSTRUCTIONS**

Circle the number that corresponds to how much you agree with each of the statements on the following pages.

Circle NA only if the statement does not apply to you. Do not circle NA if you don't agree with the statement.

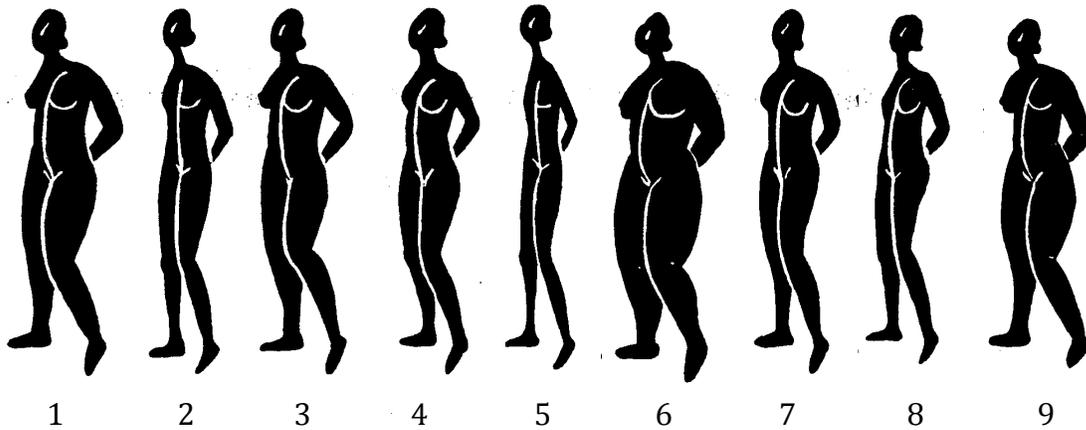
For example, if the statement says "When I am happy, I feel like singing" and you don't feel like singing when you are happy, then you would circle one of the disagree choices. You would only circle NA if you were never happy.

- | | | | | | | | | |
|---|---|---|---|---|---|---|---|----|
| 1. I rarely think about how I look. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
| 2. When I can't control my weight, I feel like something must be wrong with me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
| 3. I think it is more important that my clothes are comfortable than whether they look good on me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
| 4. I think a person is pretty much stuck with the looks they are born with..... | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
| 5. I feel ashamed of myself when I haven't made the effort to look my best..... | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
| 6. A large part of being in shape is having that kind of body in the first place. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
| 7. I think more about how my body feels than how my body looks. ... | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
| 8. I feel like I must be a bad person when I don't look as good as I could. ... | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
| 9. I rarely compare how I look with how other people look. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
| 10. I think a person can look pretty much how they want to if they are willing to work at it..... | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |

	Strongly Disagree	Neither agree nor disagree		Strongly Agree	Does not apply			
11. I would be ashamed for people to know what I Really weigh.....	1.....	2.....	3.....	4	5	6	7	NA
12. I really don't think I have much control over how my body looks.	1.....	2.....	3.....	4	5	6	7	NA
13. Even when I can't control my weight, I think I'm an okay person.....	1.....	2.....	3.....	4	5	6	7	NA
14. During the day, I think about how I look many times.	1.....	2.....	3.....	4	5	6	7	NA
15. I never worry that something is wrong with me when I am not exercising as much as I should.....	1.....	2.....	3.....	4	5	6	7	NA
16. I often worry about whether the clothes I am wearing make me look good.....	1.....	2.....	3.....	4	5	6	7	NA
17. When I'm not exercising enough, I question whether I am a good enough person.	1.....	2.....	3.....	4	5	6	7	NA
18. I rarely worry about how I look to other people	1.....	2.....	3.....	4	5	6	7	NA
19. I think a person's weight is mostly determined by the genes they are born with.	1.....	2.....	3.....	4	5	6	7	NA
20. I am more concerned with what my body can do than how it looks.	1.....	2.....	3.....	4	5	6	7	NA
21. It doesn't matter how hard I try to change my weight, it's probably always going to be about the same.	1.....	2.....	3.....	4	5	6	7	NA
22. When I'm not the size I think I should be, I feel Ashamed ...	1.....	2.....	3.....	4	5	6	7	NA
23. I can weigh what I'm supposed to when I try hard enough.	1.....	2.....	3.....	4	5	6	7	NA
24. The shape you are in depends mostly on your genes.....	1.....	2.....	3.....	4	5	6	7	NA

Appendix F

Body Image Assessment-Revised



1. Which figure best depicts your actual size—the size that might be shown in a mirror?
2. Which figure best depicts how large do you feel you are?
3. Which figure best fits the body size you would most prefer to be?

Appendix G**Curriculum Vitae****Christina Weiss Tuning**

P.O. Box 896
Newberg, OR 97132

(503) 351-3570
ctuning08@georgefox.edu

EDUCATION

Doctoral Student in Clinical Psychology (PsyD) Program 2014-Present
George Fox University Graduate Department of Clinical Psychology (APA Accredited)
Newberg, Oregon
Advisor: Kathleen Gathercoal, PhD
Anticipated Graduation: June 2017

Master of Arts, Clinical Psychology 2012-2014
George Fox University, Newberg, Oregon

Bachelor of Arts, Economics, Suma Cum Laude 2007-2011
George Fox University, Newberg, Oregon

SUPERVISED CLINICAL EXPERIENCE

SAMARITAN HEALTH SERVICES June 2016-Present
Waldport and Corvallis Oregon

Title: Psychology Intern

Treatment Setting: Primary Care

Populations: Diverse rural populations of adolescents, adults, and geriatrics referred
For mental and behavioral health services within primary care settings

Supervisor: Michael Herman, PsyD; Robert Fallows, PsyD, ABPP; Carilyn Ellis,
PsyD; Christopher Smith, PhD, ABPP

Clinical Duties:

- Provide support and consultative services to medical providers regarding patient care, including diagnostic clarification and medication consultation
- Conduct brief mental health assessment and psychotherapeutic interventions

- Behavioral health interactions including sleep hygiene, management of chronic illness, smoking cessation, weight management, depression, anxiety/panic, and stress management
- Co-led group therapy and psychoeducational groups with chronic pain patients
- Provide long-term Humanistic and CBT therapy for individuals with complex mental health concerns
- Participate in weekly internship training requirements including didactic trainings, group supervision, journal club, and conducting original research

RURAL SCHOOL DISTRICT CONSORTIUM

August 2015-June 2016

*St. Paul, Yamhill, and Carlton Oregon***Title:** Assistant Director of School Based Behavioral Health**Treatment Setting:** Public K-12 Schools**Populations:** Diverse rural populations of students, parents, and staff of K-12 multisystemic school setting**Supervisor:** Elizabeth Hamilton, PhD; Kristie Knows His Gun, PsyD**Clinical Duties:**

- Provided supervision of therapy and assessment cases for six graduate practicum students working within the Rural School District Consortium; duties included supervising treatment plans, case notes, and assessment reports, as well as supporting students' professional development and interdisciplinary skills
- Provide long-term and short-term evidence based therapy, primarily Humanistic and CBT, with children and adolescents suffering from severe mental illness
- Responded to crisis situations and provided therapeutic and psycho-educational services
- Conducted complex psychological and neuropsychological assessments for students to determine eligibility for specialized education services, completed comprehensive integrated reports, and provided feedback to parents, teachers, and school staff in interdisciplinary IEP meetings
- Administrative duties including session notes, case conceptualizations, chart reviews, practicum site management, and facilitating group supervision with practicum team as needed
- Consulted with Dr. Hamilton and Dr. Knows His Gun on training and progress of graduate practicum students and worked alongside supervisors in the management of practicum site

RURAL SCHOOL DISTRICT CONSORTIUM

August 2014-June 2015

*Yamhill and Carlton Oregon***Title:** Assessment Specialist for School Based Behavioral Health**Treatment Setting:** Public K-12 School**Populations:** Diverse rural populations of students, parents, and staff of K-12 multi-systemic school setting**Supervisor:** Elizabeth Hamilton, PhD**Clinical Duties:**

- Conducted psychological assessments for students to determine eligibility for specialized education services, completed comprehensive assessment reports, and provided feedback to parents, teachers, and school staff in IEP meetings
- Provide long-term and short-term evidence based therapy, primarily Humanistic and CBT, with children and adolescents
- Lead a social skills group with behaviorally challenged intermediate students
- Administrative duties included consulting with school staff, administrators, and parents to provide optimal support to students, as well as completion of treatment plans, session notes, termination summaries, chart reviews, and supervision of assessment and therapy cases for Practicum I students as needed

WARNER PACIFIC COLLEGE

August 2013-May 2014

*Portland Oregon***Title:** Career and Life Counseling Intern**Treatment Setting:** College Counseling Center**Populations:** Diverse populations of college students**Supervisor:** Deniese Lopez-Haugen, PsyD**Clinical Duties:**

- Provided weekly therapy for undergraduate students at Warner Pacific College
- Conducted career counseling with undergraduate students to help develop academic trajectory and consider necessary requirements for graduation
- Assisted in the development of an online career website for Warner Pacific Students and Alumni
- Conducted learning disability and therapy animal assessments, wrote formal assessment reports, and conducted feedback sessions with clients
- Completed client paper work, notes, and career counseling forms

GEORGE FOX UNIVERSITY

January- April 2013

*Newberg Oregon***Title:** Pre-Practicum Student

Treatment Setting: Graduate Department of Clinical Psychology

Populations: Two undergraduate pseudo-client students

Supervisor: Carlos Taloyo, PhD and Amanda Kruszewski, MA

Clinical Duties:

- Provided weekly therapy for two undergraduate students
- Conducted intake interviews and wrote formal intake reports, developed treatment plans, and completed session notes and termination summaries

SUPERVISION EXPERIENCE

ASSISTANT DIRECTOR SCHOOL BASED BEHAVIORAL HEALTH

Rural School District Consortium

August 2015-June 2016

St. Paul, Yamhill, and Carlton Oregon

Supervisor: Elizabeth Hamilton, Ph.D.

Comprehensive Supervisory Duties:

- Conducted individual comprehensive supervision with six graduate practicum students on a weekly basis
- Supervised clinical cases, assessment administration and conceptualization, and multi-systemic issues
- Helped supervisees develop theoretical orientations and case conceptualizations from chosen theory
- Scaffolded clinical development including paperwork, client meetings, ethical issues, assessment administration and report writing
- Supported professional development including communication with other professionals and school staff, conversations with parents, and working on interprofessional teams

CLINICAL OVERSIGHT

August 2015-May 2016

Graduate School of Clinical Psychology

George Fox University, Newberg, Oregon

Supervisor: Paul Stolfus, PsyD

Supervisory Duties:

- Provided clinical oversight of second year PsyD student
- Fostered development of student clinical and assessment skills
- Observed clinical skills

- Helped develop theoretical orientation and personal style of therapy
- Evaluated student's development of clinical and professional skills
- Provided feedback on clinical skills

ADVANCED COUNSELING GRADUATE ASSISTANTAugust 2015-
December 2015

Undergraduate Advanced Counseling Course
Undergraduate Psychology Department
George Fox University, Newberg, Oregon
Supervisor: Kristina Kays, PsyD

Supervisory Duties:

- Lead a small group of advanced counseling students in conversations pertaining to clinical work, theories, terminology, and personal process
- Reviewed videos of practice therapy and provide feedback

TEACHING EXPERIENCE

LEAD TEACHING ASSISTANT

January 2015-December 2015

Graduate Level Course: Cognitive Assessment
Graduate School of Clinical Psychology
George Fox University, Newberg Oregon
Supervisor: Celeste Flachsbart, PsyD

- Organized class materials, including writing lectures and developing competency-based grading criteria
- Lead team of three other teaching assistants for the course, supervising their work with their TA groups
- Lead TA group of four graduate students, training them in the skills of cognitive, achievement, and memory assessment administration and conceptualization
- Lectured on course material as needed
- Reviewed footage of assessment administration and protocols and provides written and verbal feedback to students

TEACHING ASSISTANT

August-December 2014

Graduate Level Course: Cognitive Assessment
Graduate School of Clinical Psychology
George Fox University, Newberg, Oregon
Supervisor: Celeste Flachsbart, PsyD

- Trained seven graduate students in cognitive assessment, including reviewing videos, protocols, and reports, and providing feedback to students
- Demonstrated administration of various cognitive, achievement, and memory assessments

TEACHING ASSISTANT

May 2015-June 2015

Graduate Level Course: Child and Adolescent Therapy and Assessment
Graduate School of Clinical Psychology
George Fox University, Newberg, Oregon
Supervisor: Elizabeth Hamilton, PhD

- Completed administrative tasks including lecture preparation
- Lectured on the BASC-3
- Graded assessment reports and presentations

UNIVERSITY AND PROFESSIONAL SERVICE

ON-CALL CRISIS INTAKE

June-August 2015

George Fox University Behavioral Health Clinic
Newberg, Oregon
Supervisor: Joel Gregor, PsyD and Chloe Ackerman, MA

- Filled an on-call crisis intake position in a Behavioral Health Clinic, conducting intake interviews with clients in crisis

RESEARCH ASSISTANT

May 2015-June 2015

Program Development: Scientific Foundations Exam
Graduate Department of Clinical Psychology
George Fox University, Newberg, Oregon
Professor: Kathleen Gathercoal, Ph.D.

- Worked with Dr. Gathercoal to develop the Master's level qualifying exam for the Graduate Department of Clinical Psychology
- Assisted in the development of sample test items, gathering test items from professors, data processing, and statistical analysis of baseline data

RESEARCH ASSISTANT

May 2015-June 2015

Program Development: Undergraduate Lifelong Fitness Course
Graduate Department of Clinical Psychology
George Fox University, Newberg, Oregon

- Worked with Graduate and Undergraduate professors to evaluate the strengths and weaknesses of the undergraduate Lifelong Fitness course and determine improvements
- Developed course readings and quizzes for the Life Long Fitness course
- Organized online course materials.

VOLUNTEER ACTIVITIES

MENTOR

2014-2016

Newberg, Oregon

- Provided mentorship for two adolescent girls in the community

SERVE DAY

August 2012-August 2015

George Fox University

- Participated in a yearly day of service in the community, completing house work and yard work at a Child Abuse Intervention Center

TEACHER'S AID

1996-2015

CS Lewis Academy

Newberg, Oregon

- Provided administrative and prep support for a Preschool and Kindergarten teacher

RESEARCH AND PRESENTATION EXPERIENCE

ONGOING RESEARCH

Smith, C., Reppeto, H., Olson, D., & Tuning, C. *The triple aim: Cost benefits of behavioral health consultants in rural primary care* (Faculty Advisor: Christopher Smith, PhD)

Hamilton, E., Knows His Gun, K., & Tuning, C. (In process) *Child clinical psychology: Nuts and bolts for practice: Bipolar and related disorders in children and adolescents*. New York: Momentum Press.

Dissertation Title: *The Impact of Sexual Objectification and Activity Monitoring on Addictive Exercise*

Committee Chair: Kathleen Gathercoal, Ph.D.

Committee Members: Elizabeth Hamilton, Ph.D. and Mary Peterson, Ph.D., ABPP

OTHER RESEARCH and PRESENTATION EXPERIENCE

Tuning, C.W. (2015, August). Reducing emotional symptoms in middle schoolers: Pre post analysis of a school-based intervention. In E.B. Hamilton (Chair), *Interdisciplinary Dissemination of Evidence-Based Interventions within Rural School Districts*. Symposium presentation at the meeting of the American Psychological Association, Toronto, CA.

Weiss, C. Swartz, J., Gathercoal, K., & Headly, S. (August, 2014). “Training children in peace making language and skills increases the variety of their responses”. Poster presented to the Society for Peace Psychology (Div. 48) at the Annual meeting of the American Psychological Association, Washington, D.C

Kruszewski, M., McConnell., C., Webb., B., Sieg, C., **Weiss, C.**, Swartz, J., & Gathercoal, K. (July, 2013). Fees paid and therapeutic satisfaction in community mental health. Poster presented to the Annual meeting of the American Psychological Association, Honolulu, Hawaii.

PROFESSIONAL MEMBERSHIPS

American Psychological Association—Student Member

2012-2016