
Self-objectification in the fitness center environment: A qualitative perspective

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Abstract

The purpose of this study was to explore the perceptions and experiences of physically active individuals in the fitness center environment. We adopted the interpretive description methodology to examine the question of whether, and how, this environment played a role in individuals' experiences of self-objectification and their body image. Interviews were conducted with 16 college-age individuals, who were exercising in a fitness center, at two time points separated by 12 weeks. Deductive and inductive content analyses of the semi-structured interviews revealed three general themes: (a) body image and body (dis)satisfaction, (b) reasons and goals for exercising, and (c) the physical environment. This interpretive description inquiry provided a preliminary framework for future studies of self-objectification in potentially objectifying fitness and exercise environments.

Keywords: Fitness centers, exercise, self-objectification, interpretive description method

Longitudinal, cross-sectional, and experimental studies consistently suggest a positive relationship between physical activity¹ and personal well-being (e.g., Biddle and Mutrie, 2008). It has long been established that regular exercise increases physical and cardiorespiratory fitness, immune system function, and longevity (Biddle and Mutrie, 2008). Regular exercise has also been shown to have a positive influence on various aspects of psychological well-being including self-esteem, affect, mood, trait anxiety, depression, and stress (e.g., Biddle and Mutrie, 2008; Dunn, Trivedi, and O'Neal, 2001; Rethorst, Wipfli, and Landers, 2009). In addition, meta-analytic reviews have indicated that exercise can serve to improve body image and body satisfaction (Campbell and Hausenblas, 2009; Loland, 2000). However, despite the wide range of physical and mental benefits of physical activity and exercise, millions of U.S. adults remain essentially inactive (American's Health Rankings, 2015) and less than 21% of adults meet the physical activity guidelines proposed by the U.S. Department of Health and Human Services (2008-2015; i.e., at least 150 minutes per week of moderate-intensity aerobic physical activity or 75 minutes per week of vigorous-intensity aerobic exercise).

There are numerous determinants as to why people choose to be physically active and engage in exercise including enjoyment, stress relief, improved body tone, and weight control (Ingledeew and Markland, 2008). Broadly speaking, these reasons can be grouped into three conceptually discrete categories: physical health reasons (e.g., improve stamina, increase physical fitness, improve health), mental health reasons (e.g., stress relief, enjoyment), and appearance reasons (e.g., body tone, weight loss to look better; Furnham, Badmin, and Sneade, 2002; Strelan, Mehaffey, and Tiggemann, 2003). Maintaining and controlling a desirable physical appearance has been cited as one of the most common determinants for exercise (Leary, 1992).

In society today, intense pressure exists, from various sources (e.g., media) to look “good” and attractive (Sharma and Black, 2001). Individuals are constantly being observed, looked at, evaluated by others, and therefore “always potentially objectified” or seen as objects (Fredrickson and Roberts, 1997, p. 177). Awareness of this objectification can lead to habitual monitoring and evaluation of one's body to attempt to approximate society's ideals. Objectification theory, proposed by Fredrickson and Roberts (1997), provides a framework for understanding the psychological experiences and consequences of preoccupation with and surveillance of female, and to a lesser extent male, attractiveness. These authors suggest that individuals internalize an outsider's perspective of the physical self in a process known as self-objectification. In this process, individuals become self-conscious and preoccupied with how others perceive their bodies. As such, self-objectification may result in body dissatisfaction, reduced body esteem, disordered eating, shame, anxiety, sexual dysfunction, and reduced performance on cognitive tasks (Calogero, 2009; Fredrickson and Roberts, 1997; Quinn, Kallen, Twenge, and Fredrickson, 2006; Strelan and Hargreaves, 2005). Within the framework of objectification theory (Fredrickson and Roberts, 1997), our aim was to provide an in-depth understanding of individuals' perceptions of (a) their bodies, (b) their reasons for exercise, and (c) their exercise environments.

Exercise, Body Satisfaction, and Body Image

Previous studies have consistently demonstrated an inverse relationship between exercise and body dissatisfaction (Campbell and Hausenblas, 2009; Hausenblas and Fallon, 2006; Loland, 2000; Reed and Ones, 2006; Reel et al., 2007). Research indicates that both physically active men and women are more satisfied with their body across their lifespan compared to inactive individuals (Loland, 2000). Specifically, meta-analytic studies, including one that focused on experimental designs, have

suggested that exercise is associated with reduced body dissatisfaction (Campbell and Hausenblas, 2009; Hausenblas and Fallon, 2006; Reed and Ones, 2006; Reel et al., 2007). Additionally, a review of six studies directed at exercise interventions among patients with eating disorders reported decreased negative features such as body dissatisfaction and drive for thinness (Hausenblas, Cook, and Chittester, 2008).

Because an increase in positive features is not the same as a decrease in negative features (Fredrickson, 2001; Tylka, 2011), researchers have also investigated whether exercise is associated with increased *positive* aspects of perception of one's body (e.g., body satisfaction, positive body image) as well as decreased body dissatisfaction. Evidence from both qualitative and quantitative studies supports a positive relationship between exercise and body image. For example, two qualitative inquiries suggest that women with positive body image viewed exercise as a means to relieve stress, to enjoy themselves, and to improve and promote health and well-being rather than to lose weight (Frisén and Holmqvist, 2010; Wood-Barcalow, Tylka, and Augustus-Horvat, 2010). In another qualitative study, female student-athletes reported that they focused on the functions and capabilities of their bodies (Krane, Choi, Baird, Aimar, and Kauer, 2004). They appreciated having strong, well-developed muscles that enabled them to perform optimally. Several quantitative studies also provide support for the relationship between exercise and positive body image. For example, dancers (modern and street) scored higher on body appreciation compared to their non-dancing counterparts (Langdon and Petracca, 2010; Swami and Tovée, 2009). Also, women who frequently engaged in moderate to strenuous exercise showed higher levels of body appreciation, body orientation (i.e., focusing on physical capability rather than body appearance), and functional body satisfaction (Homan and Tylka, 2014).

It is likely that the benefits of exercise are not the same for all individuals. Numerous factors have been shown to play a moderating role in psychological outcomes associated with exercise, including type of exercise engagement, pre-existing body image concerns, and cognitions during the activity (Lepage and Crowther, 2010; Melbye, Tenenbaum, and Eklund, 2007; Vocks, Hechler, Rohrig, and Legenbaugher, 2009). For example, engagement in cardio-based fitness programs was related to increased self-objectification levels, disordered eating, and lower body esteem; however, engagement in resistance-based exercise was not associated with body image concerns (Melbye et al., 2007; Prichard and Tiggemann, 2008). Women with pre-existing weight concerns and a desire for thinness reported feeling slimmer after a bout of physical activity compared to women with no pre-existing body image concerns (Vocks et al., 2009). In terms of cognitions during the activity, participants who focused on their breathing during exercise (running) experienced reduced gains in positive affect compared to those whose minds wandered during their running session (Blanchard, Rodgers, and Gauvin, 2004). Such results suggest that multiple characteristics can influence the psychological effects of exercise.

Motives for Exercise

The research suggests that motivation for exercise also plays a role in whether exercise acts as a buffer for body image and disordered eating concerns (Prichard and Tiggemann, 2008). For example, exercising for health, endurance, enjoyment, and fitness-related reasons has been associated with improved body image and self-esteem, body satisfaction, and decreased symptoms of disorder eating (DiBartolo, Lin, Montoya, Neal, and Shaffer, 2007; Strelan et al., 2003). On the other hand, exercising for appearance-related reasons has been linked to poor body image and self-esteem, disordered eating, body dissatisfaction, and increased depressive symptoms (DiBartolo et al., 2007; Gonçalves and Gomes, 2012; Mond, Hay, Rodgers, and Owen, 2006; Tiggemann and Williamson,

2000). Determinants for exercise have not only been linked to psychological health, but also to physical health. Exercising for health-related reasons has been associated with lowered levels of stress hormones and systolic blood pressure, whereas exercising for weight reasons was unrelated to these physiological indicators (DiBartolo et al., 2007). Together, these findings suggest that exercising for health and enjoyment reasons is qualitatively different from exercising for weight, physical condition, or appearance reasons.

Exercise Environment

Whether individuals experience positive or negative effects of exercise also depends on the environment in which they exercise (Prichard and Tiggemann, 2008). According to the Physical Activity Council (2016), 62.7% of individuals who exercise, engage in fitness activities (e.g., aerobics, free weights), 48.6% participate in outdoor sports, and 34.6% engage in individual sports. Walking, weightlifting, and using cardiovascular equipment are cited as the most frequent modes of exercise among the U.S. population (United States Department of Labor, 2003-2006). Fitness facilities are venues where people usually engage in health-benefiting exercise behaviors. In this setting, the body is often an individual's central focus and one which lends itself to seeing the body as an object that can be trimmed, shaped, and refined via appropriate exercise protocols (Szymanski, Moffitt, and Carr, 2010). Moreover, people are surrounded by full-length mirrors in which they are likely to observe others and themselves, possibly in clothing that reveals their physical shape. Moreover, fitness facilities often display media (e.g., music videos, posters) of ideal bodies and bodybuilders, which might have a great impact on exercisers. This suggests that fitness center facilities can serve as an objectified environment (Prichard and Tiggemann, 2008). Indeed, exercising in the fitness center environment has been positively correlated with self-objectification concerns, disordered eating, and excessive weight loss (Martin Ginis, Jung, and Gauvin, 2003; Prichard and Tiggemann, 2008). Additionally, in their longitudinal study, Prichard and Tiggemann (2012) found an increase in self-objectification levels among young women (ages 16-28) after 12 consecutive months of fitness center membership, whereas the levels of self-objectification decreased for women who terminated their membership. However, the levels of self-objectification did not change among older subgroups of women (ages 29-68). These findings suggest that young women exercising in the fitness center environment may be at greater risk of developing self-objectification, which is one of the predictors of negative body image and disordered eating. Other survey-based empirical and experimental research has yielded evidence of the negative effects of the self-objectifying environment in physically active individuals (Prichard and Tiggemann, 2005; Thøgersen-Ntoumani, Ntoumanis, Cumming, Bartholomew, and Pearce, 2011).

Despite the evidence for self-objectification in the extant literature, there is a dearth of understanding from the qualitative perspective regarding the environmental antecedents of self-objectification. The overall purpose of the present study was to gain a deeper and a more comprehensive understanding of the exercisers' perceptions of their bodies in the fitness center environment and to examine whether this environment would foster self-objectification. Specifically, the focus was to gain in-depth information on individuals' perceptions of the determinants of exercise, body image, and the exercise environment. We have adopted an interpretive research methodological framework to provide insight into the experiences of individuals exercising in the fitness center environment over a three-month period (e.g., Burgess, Grogan, and Burwitz, 2006; Thorne, 2008). A better understanding of these individuals' experiences may benefit researchers who study physical self-concept and health issues concerning body image. It may also provide a starting point for those wishing to explore a confluence of self-objectification antecedents including body esteem, exercise motives, and the exercise

environment. Finally, the use of qualitative research has largely been overlooked in objectification theory research to date. The use of the qualitative inquiry can provide a more comprehensive understanding of the phenomenon as empirical measures may be limited in assessing multifaceted concepts (Smith and Sparkes, 2009). Therefore, the current study extends the conceptual understanding of self-objectification as experienced by adult exercisers.

METHOD

We utilized the interpretive descriptive approach to capture themes and patterns based on subjective perceptions, and to generate interpretive descriptions of the studied phenomenon (Thorne, 2008; Thorne, Reimer Kirkham, and O'Flynn-Magee, 2004). The interpretive descriptive approach presents a comprehensive summary of a phenomenon or events and their facts in everyday language (Sandelowski, 2000). It borrows the design from grounded theory, naturalistic inquiry, and ethnography while relying on the values associated with the phenomenological approach (Thorne et al., 2004). Through both inductive and deductive analytic approaches, we sought an understanding of the self-objectification phenomenon, its characteristics, and patterns generated, based on critical and analytical examination of the data and the use of reflective techniques.

Sampling

Uncovering the meanings of a phenomenon requires carefully capturing descriptions of people's experiences, including their perceptions, emotions, feelings, and judgments. Therefore, we utilized purposeful and criterion sampling, whereby participants were selected based on the criteria outlined below. To acquire a broad range of individuals' experiences and their perceptions of the fitness center, we sought exercisers who (a) had either low (i.e., -18 or below) or high (i.e., 2 or above) levels of self-objectification (Noll and Fredrickson, 1998), (b) had a range of experience exercising in fitness centers, and (c) were willing to participate in the interviews.

The primary author screened 60 exercisers to identify eligible participants. All recruits agreed to participate in the initial prescreening stage of the study by completing demographic questions, exercise behavior questions, and the self-objectification questionnaire. Of those recruits, 13 women and 5 men met the inclusion criteria. In addition, two certified personal trainers (CPTs) were recruited to provide their perspective of self-objectification phenomena among exercisers.

Participants

The age range of the exercisers who were interviewed was from 19 to 52 years ($M_{age} = 22.89$, $SD = 7.9$). The age range for female participants was from 19 to 52 ($M_{age} = 24$, $SD = 9.13$) and for male participants was from 19 to 21 ($M_{age} = 20$, $SD = 1$). The race/ethnicity of the sample was as follows: White (72.2%), White non-Hispanic (5%), African-American (11.1%), and Asian Pacific Islander (11.1%). Participants had completed at least one year of a college degree (50%), or had received an associate's degree (22.2%), bachelor's degree (11.1%), or master's degree (16.7%). Most of the participants had never been married (83.3%), 11.1% were divorced, and 5.6% were married.

All recruited participants had previous exposure to the fitness center environment. They were involved in various exercise routines including yoga, aerobics, and individual cardio- and/or resistance-based workouts. The mean self-reported average weekly minutes of moderately intense (4 individuals) and strenuous (14 individuals) physical activity was 182.65 ($SD = 90.66$) for Time 1 and 179.69 ($SD = 94.51$) for Time 2. Two of the male participants dropped out over the course of study. Both CPTs (male – CPT1 and female – CPT2) were college-aged students ($M_{age} = 21.50$, $SD = .71$).

with an average of seven months' experience working at the fitness center where the study took place. To ensure the participants' anonymity, pseudonyms were used throughout the study.

Measures

Participants who met the inclusion criteria completed demographic questions, exercise behavior questions, and self-objectification questionnaire at two time points. The CPTs completed only the demographic questions.

Demographic questionnaire. Self-report demographic questions were used to obtain information on gender, age, ethnicity, education, marital status, and months/years of membership in the fitness center. The CPTs were asked additional questions regarding their work experiences.

Exercise behavior. The extent of exercise participation was measured via self-report. Participants were asked how many months/years they had been members of the fitness center, how often (e.g., times per week) they exercised, and in what type of exercise they engaged (e.g., aerobics [e.g., Zumba, aerobics classes], yoga, and cardio- [e.g., running, biking, rowing] or resistance-based workouts). They were also asked about the duration of their workouts in the fitness center, and whether they were involved in any additional physical activities. Finally, participants indicated the intensity level of their physical activity (i.e., strenuous, moderate, or mild).

Self-objectification. The Self-Objectification Questionnaire (SOQ; Noll and Fredrickson, 1998) was used to examine individual differences in self-objectification. In the SOQ, participants rank 12 different body attributes as being most to least important to their physical concept. Six of these 12 attributes are appearance-based (i.e., weight, sex appeal, physical attractiveness, firm/sculpted body, body measurements, and coloring). The remaining six are competence-based (i.e., physical condition, health, muscular strength, physical energy level, physical fitness level, and stamina). Potential scores range from -36 to +36 with higher and positive scores indicating a greater focus on appearance, which is interpreted as greater self-objectification (Noll and Fredrickson, 1998). Convergent and divergent validity were established by positive correlations with appearance anxiety, $r = .56$, and body size dissatisfaction, $r = .33$. Body shame and self-objectification were found to be positively correlated, $r = .54$ (Noll, 1996). Internal consistency has been supported in previous studies with Cronbach's alpha coefficients ranging from .87 to .97 (e.g., Noll, 1996; Noll and Fredrickson, 1998; Miner-Rubino, Twenge, and Fredrickson, 2002). The internal consistency as indicated by Cronbach's alpha for this sample was .75.

Data Collection

This interpretive description utilized multiple data collection strategies to avoid naïve overemphasis on the interview data and to offer comprehensive and contextual interpretations (Sandelowski, 2002). The data collection process consisted of the recruitment stage, two one-on-one interview phases, and observations. After institutional ethical approval was granted, participants were recruited with flyers posted at the local fitness center bearing the description of the study, the selection criteria, and the study contact information. All data were collected by the primary author.

During the recruitment stage, the purpose of the study was explained in detail, and participants signed an informed consent and completed the three questionnaires. Individuals who met the inclusion criterion were invited to a follow-up meeting. At this meeting (i.e., Time 1), a 20- to 60-minute one-on-one semi-structured interview was conducted in a private room (see the Appendix A for the interview questions). The purpose of these interviews was to seek a concrete, detailed description of

the self-objectification phenomenon in the fitness center to provide a coherent conceptual description of the thematic patterns and commonalities that characterized the participants' experience (Thorne et al., 2004). Interviews began with an open-ended question, and were subsequently guided by specific probes and follow-up questions to elicit more detailed information about the participants' experience and deeper insight into the research question (Kvale, 1996). These questions were also used to encourage participants to supplement their original descriptions while allowing the interviews to remain conversational in nature (Patton, 2015).

The second meeting (i.e., Time 2) occurred 12 weeks later utilizing the same procedures (i.e., participants completed the same battery of questionnaires and participated in a one-on-one semi-structured interview). The primary author also conducted 6 rigorous observations in the fitness center over the course of 12 weeks. Each observation lasted between 30 and 60 minutes with the aim of gaining information on individuals' behavior (e.g., working out, use of mirrors, etc.) and their clothing. At the end of the second interview, participants were debriefed about the nature of the study and were provided with contact information, should they wish to attend a follow-up meeting to learn the results of the study.

Data Analysis

The interviews were audio-recorded and transcribed verbatim by the primary author. Each interview was listened to numerous times to capture not only the words themselves, but their meaning and importance. Participants completed member checks to ensure that the transcriptions accurately reflected their experiences (Creswell, 2014). Any identifying information was removed to maintain participants' confidentiality. The primary author then finalized the transcripts as organized raw data, and performed an inductive content analysis to identify the meaning units and categorize them into thematic patterns or themes. The raw data from the interviews and observations were divided into textual parts to generate information contributing to the understanding of the phenomena (Patton, 2015). The primary author then organized (i.e., coded) the data into subcategories or second-order themes by comparing, contrasting, and grouping the meaning units. These subcategories were deductively organized into major or third-order themes. Deductive analysis was done using pre-established groups of categories to organize first- and second-order categories. In particular, previous literature and theoretical framework on potential attributes of self-objectification were used to deductively group the first- and second-order categories into third-order categories (Patton, 2015).

Data triangulation was done by adopting multiple sources of data. Specifically, the semi-structured interviews and observations in the fitness center were utilized (Patton, 2015). To explore the findings that might arise from these sources, different verification strategies were used, including comparative and iterative analyses of these data. Finally, a validity check was performed using two methods. The first method was member checking, which was done through email. All participants expressed satisfaction with the transcribed interviews. The second validity check was done by two experienced "critical friends." After their independent analysis review, disagreements were discussed and resolved by further review of the raw data.

RESULTS

Based on the qualitative analyses, we propose three essential themes in the participants' lived experiences in the fitness center environment: (a) body image and body (dis)satisfaction, (b) reasons and goals for exercising, and (c) the physical environment. We also discuss the gender differences that emerged within these themes.

Body Image and Body (Dis)Satisfaction

The relative importance of body image and body (dis)satisfaction varied among individuals from “the most important thing is that I feel good about it. . . . If I feel like I’m healthy, and the doctor says I’m healthy, then I think that’s the most important” to “I just want to lose that weight.” Themes and subthemes that emerged for body (dis)satisfaction at Time 1 and Time 2 were health, psychological well-being, appearance, body weight, and the upper body.

At Time 1, Maggie stated that “the most important [thing] is to stay comfortably functional and to never let myself fall into the state of obesity. To maintain good health because if you don’t have health you don’t have anything.” Regarding specific body parts, Nick explained that the most important aspect of his body was “core, like my abs and lower back.” Abby wanted to have “a nice flat stomach.” Overall, females valued their appearance and wanted to “look [their] best all the time.” They emphasized their abdominal muscles, shoulders, thighs, and biceps. Males stated that they emphasized their core, abdominals, chest, and arm muscles during their workouts. Personal trainers had similar experiences with the clients they saw on a regular basis. CPT1 stated that both males and females emphasize their abdominal muscles. “Girls also, legs, more so butt, and sometimes arms, they never want to work out chest and back. . . . Most guys wouldn’t want to work out legs, or they haven’t been working out legs in a while.”

Regarding body image, participants valued appearance, body weight, and psychological well-being. For the females, it was important to “feel like I’m pretty” and “to be a little slimmer.” Joe expressed that “a big thing for me is not to be overweight, to be in shape, to look good, to feel good, and to have more energy.” On the other hand, for Jane it was important “to feel good, working out properly, having a healthy diet, and actually feeling good about how I look afterwards.”

In general, participants were satisfied and “pretty happy” with their bodies and the way they looked. The main subthemes that emerged regarding body modifications were height, body fat, and the waist-hip area. In general, females wanted to be “just a little taller” and “get rid of [extra stomach fat],” whereas males wanted to “tone up a little bit” and gain muscle mass. Workout attire for males and females was usually shorts or yoga pants, a regular t-shirt, and for some, a tank top. Adrianna stated, “I don’t want it to be tight. I like it comfortable.” If female participants did not feel comfortable with their bodies, or felt self-conscious about a certain body part(s) due to skin conditions, scars, body fat, menses, or not being waxed, and covered up these self-described “offending” body part(s). Abby explained that “if I really didn’t really like the way my stomach looks, I probably wouldn’t wear really tight shorts, but bigger loose-fitting clothing is more comfortable to work out in anyway.” During the observations, it was noticed that some of the exercisers in the fitness center wore very baggy t-shirts and shorts, while others wore more revealing workout attire. For example, one male wore a torn sleeveless t-shirt revealing almost his entire back.

At Time 2, some of the participants were more aware of specific parts of their bodies. They noticed that they had gained or lost weight and had experienced muscle hypertrophy and other physiological changes. Ada stated that she “gained weight. Well, since I’ve been doing yoga more consistently I’m feeling like my upper body is stronger.” Nick explained, “I feel bigger, more defined. I feel overall my body got bigger.” Julio expressed that he “gained a lot of strength and when I ran my time decreased and improved” and “I built some muscles [especially] my chest and shoulders.”

Reasons and Goals for the Exercise

Four main themes emerged in terms of reasons and goals for exercise at both Time 1 and Time 2. At Time 1, participants stated that they exercised for psychological, physical, health, and appearance-related reasons. Their goals were in alignment with these reasons. Specifically, they wanted to increase their levels of flexibility and endurance, relieve stress, reduce heart disease, and stay healthy. For example, Mitch's goal was to get "overall greater physical ability and just feel healthier. I feel better after I exercise." Maggie wanted "to maintain the level of physical fitness that I have now." In the same manner, MaryKay was exercising "mainly to be healthy. I don't do it to look good, I never had big weight issues, so, but to have strong bones and not to have a hard time later in life."

Others were exercising mainly for appearance-related reasons. Their goals were to look slimmer and better. Jane was exercising "to lose weight" and to have a "better physique." Angela wanted "to lose that fat under my arms, my belly and my legs. I just want to lose that weight. Just not to be so darn fat." She further stated, "I don't want to be jiggly, I want to have toned legs. I don't want to be flabby. I don't want to have a muffin top. I just want toned arms and legs."

Three months later, at Time 2, motivation for exercise engagement did not appear to have changed drastically. Individuals continued to assert that they were exercising mainly for the physical and mental benefits they gained. Mitch was exercising "to feel healthy, mainly. Gives me more energy and usually the more I work out, the more natural energy I have. Building up flexibility, not to get stronger, just get healthier and fit." Marisa expressed that exercise "makes me feel calmer, it was stress relief when I would have a hard day. . . . gets out all these tensions. . . . makes me feel better when I see my body transforming." Angela stated that she exercised to lose weight and to "feel better. It feels like you're accomplishing something."

Overall, females expressed that they exercised for physical and appearance-related reasons to "maintain weight and stay healthy." Males' primary reasons for exercise were related more to health and physical ability. Their main goal was to increase healthy weight, mainly muscle mass. CPT1 stated that "usually the males, their goal is to get bigger" and "females want to decrease body fat and get toned, have more muscular definition and decrease fat." CPT2 stated that for 90% of her clients, their primary goal was "getting toned."

Physical Environment

Fitness facilities may promote weight loss via classes that encourage individuals to become aware of their physique and weight. Additionally, most fitness centers are heavily equipped with mirrors, and display posters of ideal lean bodies and bodybuilders, which may have an impact on exercisers. This was evident from the constant physique monitoring among individuals observed in the fitness center, which occurred during both workouts and breaks. Most of the individuals working out in the free-weight area watched themselves in the mirrors during sets, between, sets, and/or during breaks between different segments of their routines. Exercisers looked at themselves in the mirror to gain feedback on either their performance and/or appearance. At Time 1, Claire stated that she watched herself in the mirror when she lifted weights "to make sure I'm doing it right and I like to see myself sweat when I work out." Julio stated that he looked at himself in the mirror "a lot for the form, but I also like to see how much I improved." Anne also said that she watched herself in the mirror "to make sure that I'm doing them right."

Interviewees had different perceptions of others using mirrors. Nick stated that "my friends are like me, they use it purely for form. . . . Some guys I think check themselves out." Julio stated, "I think

most of them are probably doing the same as me [for the form] or sometimes their vanity is getting to them and they're just checking themselves out." Exercisers also observed others and compared themselves to the "ideal" individuals they saw. These observations were either body- or exercise/performance-focused. For example, Joe stated "I always look at the weight. . . . Is he doing more? Oh, he's doing more, next set I'll do more." Jane stated that "every time I walk in [the gym], I'll look around. . . . I'm like, I want that part of the body."

When asked about their interactions with others, many exercisers reported keeping conversation to a minimum. For example, Angela stated that she kept her conversations very short "because I would feel like they would be judging me. Because I'm not comfortable with myself, therefore, they're not comfortable with how I am either. So, I don't talk to other people." Marisa also stated that going to the gym for her was "nerve-wracking." She explained, "I found myself focusing on what everyone else was doing. Oh, that girl looks better than you; maybe I should be doing it that way."

At Time 2, however, after three months of exercising, most of the interviewees also reported a positive, enjoyable, and fun experience. Some of them stated that they thought about their individual muscles more than at Time 1. Adrianna explained that "I look at [my body] more analytically." Joe explained that "even though I run on the track and there are people around, I still think about how I look."

Reasons for looking in the mirror did not drastically change from Time 1. Participants reported that they mainly watched themselves in the mirror to monitor their technique. They also stated that they used the mirrors as much as or more than at Time 1. Some interviewees paid attention to people's form and technique whereas others judged and compared their physique to that of other exercisers in the fitness center.

The two personal trainers reported various views about using the mirrors in the fitness center. CPT2 stated that she encouraged her clients to use mirrors. She told her clientele, "when I'm not here, check yourself and make sure you're doing the right range of motion" and "if you don't remember, ask, or you can watch yourself in the mirror." She stated that "[mirrors] are there for a reason, so you can watch yourself -- your form. . . . I wish there would be more mirrors." On the other hand, CPT1 did not promote the use of mirrors to his clients. He stated that "I would hope that they'd remember all my form cues and that they wouldn't have to rely on the mirror."

DISCUSSION

The present study is one of the few qualitative inquiries to examine individuals' experiences in the fitness center environment. Specifically, our aim was to provide a deeper understanding of the exercisers' perceptions of their bodies, reasons for exercise, and exercise environment. From the interviews and observations, a broad range of rich data on exercisers' experiences in the fitness center environment yielded three main themes: (a) body image and body (dis)satisfaction, (b) reasons and goals for exercise, and (c) perceptions of the physical environment. The results of the current study support previous research regarding the potential antecedents of self-objectification from the qualitative perspective (e.g., Prichard and Tiggemann, 2005; 2008; 2012; Strelan and Hargreaves, 2005). The current findings also provide insight into exercisers' experiences and how the exercise environment may contribute to the internalization of an observer's perspective, or even the development of self-objectification as demonstrated by the previous quantitative study (Prichard and Tiggemann, 2012).

Regular participation in exercise and physical activity provides many benefits, including physiological, psychological, and health benefits (Biddle and Mutrie, 2008; Campbell and Hausenblas, 2009; Rethorst et al., 2009). However, whether individuals experience these positive effects depends to a large extent on a myriad factors such as preexisting body image concerns, cognitions during the activity, reasons for engagement in exercise, and exercise environment (Lepage and Crowther, 2010; Melbye et al., 2008; Vocks et al. 2009; Strelan et al., 2003). Below we discuss the main themes that emerged from the interviews and observations.

Body Image and Body (Dis)Satisfaction

Emerging themes on the importance and value of one's body ranged from health and psychological well-being to appearance and body weight. The current findings are consistent with the evolutionary psychology perspective, specifically Darwin's (1859) sexual selection, wherein males and females engage in sex-appropriate strategies to attract and secure mates. Evolutionary theorists propose that mate selection largely depends on the characteristics that denote reproductive fitness (Buss, 1989; Symons, 1979). For example, females tend to choose mates based on their potential for resource acquisition, whereas males value females' reproductive capacity (Buss, 1989). Supporting this notion, we found that males were more likely to engage in behaviors to look bigger and to increase their muscle mass. Additionally, they mainly focused on the upper body including abdominals chest, and arms (Ridgeway and Tylka, 2005). On the other hand, females were more likely to engage in behaviors to look their best at all times, to look appropriately thin, and to stay healthy – health in females signals reproductive fitness. Similar patterns were observed by the CPTs, who stated that males primarily focused on their upper bodies while females emphasized their abdominal muscles, legs, and buttocks.

Perhaps one of the most overlooked aspects of body image deals with everyday appearance-management behaviors such as clothing (Cash, 1990). Especially in fitness centers, where the body is generally the individual's central focus, clothing is important for both the individual wearing it and for others. Some research evidence suggests that people use clothing not only to meet societal dress codes/norms, but also to address self-presentational concerns to manage and improve their appearance, as a camouflage, and/or for comfort and assurance (Rudd and Lennon, 2000; Tiggemann and Andrew, 2012; Tiggemann and Lacey, 2009). Relevant to the present study, Prichard and Tiggemann (2005) found that exercisers in the gym wearing baggy clothing had lower levels of trait self-objectification and self-surveillance than those in close-fitting attire. Congruent with the previous research, participants endorsed wearing comfortable and functional clothing, as well as using clothing to address self-conscious concerns and to cover up and conceal their own perceived weight-based imperfections (Kwon and Parham, 1994; Rudd and Lennon, 2000; Tiggemann and Lacey, 2009). On the other hand, some exercisers wore very revealing outfits, which might have had an impact on others' perceptions of their own bodies. That is, although revealing outfits may also lead to increased self-objectification levels and/or other negative consequences (Prichard and Tiggemann, 2005). However, these possibilities are beyond the scope of the present study.

Motives for Exercise

Another theme that emerged from this study was reasons and goals for exercise. Individuals' motives for exercise ranged from appearance-related to health-related and did not change extensively over the three-month period of this study. Congruent with some of the previous research (Kilpatrick, Hebert, and Bartholomew, 2005), many women reported their reasons for exercising to be related to appearance, physique, and weight management, whereas men primarily exercised to stay healthy and to increase strength and muscle mass. Similarly, the CPTs observed that males' goals were to get

bigger and increase muscle mass and females' goals were to decrease body fat and increase their muscular definition. These observations are which is in line with the subthemes that emerged in the body (dis)satisfaction and body image sections as described above.

Research using figure drawings has indicated that women tend to desire an ideal body shape that is slimmer than their current body form, whereas up to 91% of men desire to have a more muscular body frame (Jacobi and Cash, 1994). Evidence suggests that individuals who tend to engage in exercise to address self-objectification concerns are more likely to exercise for appearance-related reasons (Prichard and Tiggemann, 2008; Strelan and Hargreaves, 2005). In turn, exercising for appearance has been linked to a plethora of negative consequences such as poor body image and self-esteem, disordered eating, body dissatisfaction, and increased depressive symptoms (DiBartolo et al., 2007; Gonçalves and Gomes, 2012; Mond et al., 2006; Tiggemann and Williamson, 2000).

A vast majority of the research on objectification and self-objectification has focused on women, who are typically more often objectified and exhibit higher self-objectification levels than men (Fredrickson and Roberts, 1997; Fredrickson, Roberts, Noll, Quinn, and Twenge, 1998; Oehlohf, Musher-Eizenman, Neufeld, and Hauser, 2009). From the evolutionary psychological perspective, it is argued that a female's body provides more information about fertility and reproductive value compared to a male's body (Buss, 1989; Singh, 1993). However, this is not to say that males are not being perceived as objects or that they are immune to self-objectification and its consequences. Instead, males are as likely as females to be vulnerable to experiencing this phenomenon (Calogero, 2012). In fact, viewing sexualized images increased self-objectification for both men and women (Linder and Daniel, 2017). Still, research suggests that some groups of men are more affected than others. For example, male bodybuilders and homosexual men had higher levels of self-objectification than their non-athletic counterparts and heterosexual men, respectively (Hallsworth, Wade, and Tiggemann, 2005; Martins, Tiggemann, and Kirkbride, 2007). Together, this evidence suggests that objectification and detrimental consequences of self-objectification may have varied effects on individuals.

Exercise Environment

Whether individuals experience the positive effects of physical activity also depends on the physical/exercise environment, which is the third theme that emerged from the interviews and observations (Prichard and Tiggemann, 2008). In the fitness center environment, individuals observe others either directly or indirectly via their reflections in mirrors. Specifically, they may observe others' bodies, body parts, and/or their exercise routines. By observing and paying attention to a particular part of the body, a person may be engaging in an objectifying behavior, which can potentially lead to internalizing an outsider's perspective of the physical self or self-objectification and self-surveillance (Fredrickson and Roberts, 1997). Evidence of this may be the fact that the participants in this study often watched themselves and others in the mirrors, not only while actually performing a workout technique that may have required monitoring, but also during breaks between repetitions or sets. For example, participants reported "checking their form," "their body/body parts," and/or others' bodies and performance. While looking in the mirror, a person's attention and thoughts may be focused on specific body parts (local processing) rather than the entire body (globalized processing; for review on local and global processing see Förster, and Higgins, 2005). Even though some participants stated that they watched themselves in the mirrors to check their form, they might have been seeing their body/body parts and other bodies as objects or as bodies performing routines. However, this possibility, and its potential influence on other exercisers, is beyond the scope of the current investigation.

According to the sexual body part recognition bias, women's bodies (vs. men's) tend to be reduced to their (sexual) body parts and are better recognized when presented in isolation (local/body part recognition; Gervais, Vescio, Förster, Maass, and Suitner, 2012). Men's bodies, on the other hand, are recognized better when presented in the context of the entire body (whole body recognition), which may help to explain why women tend to be more objectified compared to men (Gervais et al., 2012; Oehlhof et al., 2009; Tanaka and Farah, 1993). Our data indicate that the fitness center environment may foster objectification and self-objectification in both males and females, at least to some degree. The specific extent of this objectification and self-objectification in the fitness center is a question for potential future explorations.

Another subtheme that emerged from the interviews is comparison with others. Individuals were making either body or performance/exercise comparisons. According to social comparison theory, individuals are motivated to gauge and evaluate how they are doing in certain domains by comparing themselves to others to reduce their uncertainties (Festinger, 1954). Previous research has indicated that women tend to engage in body comparison when they are exposed to thin-ideal media advertisements and images of women's bodies or body parts (Bessenoff, 2006; Tiggemann and McGill, 2004). Fewer studies have addressed similar issues in men, that is, the effects of ideal male images on men in relation to social comparison. A few studies on the impact of ideal male images and TV advertisements on men found increased muscle dissatisfaction, depressive symptoms, and eating symptomology (Agliata and Tantleff-Dunn, 2004; Harrison and Cantor, 1997; Leit, Gray, and Pope, 2002). Together, these findings suggest that in order to gain a broader understanding of objectification and self-objectification constructs, future studies should take an integrative approach by incorporating related phenomena and examining them from different theoretical perspectives (e.g., social comparison theory; see Tylka and Sabik, 2001).

Finally, even though assessing the role of personal trainers in the fitness center was not a primary focus of our study, we chose to interview two personal trainers to learn about their insight on self-objectification in this environment. Their observations were useful because they provided a professional personal trainers' perspective and training philosophy for exercisers engaging in individual workouts. Future studies could explore additional determinants of self-objectification, including personal trainers and instructors of various group classes in fitness centers from the qualitative perspective.

CONCLUSION

This study provides a preliminary step toward obtaining insight into the self-objectification phenomenon for exercisers in the fitness center environment from the qualitative perspective. Further investigation is, however, clearly required because comprehensive understanding of the influence of situational factors on the progression of self-objectification is beyond what is possible in a single study.

Although we found the interpretive descriptive approach to be a good fit for our research questions, we cannot be confident that we recruited participants who actually experienced the phenomenon of self-objectification to a meaningful degree, or that the 12-week period of exposure to the fitness center environment was phenomenologically sufficient relative to self-objectification. Moreover, even though participants reported that they exercised on a regular basis, we did not have control over, or precisely measure, how physically active they were during those three months. It would be useful to track their physical activities objectively, such as using an activity tracker (e.g., Fitbit®) to monitor the

frequency, intensity, and duration of their exercise regimes. Additionally, describing the abstract phenomenon of self-objectification from the qualitative perspective is very different from describing something tangible. The emerged themes are indicators and potential contributors to objectification and self-objectification. However, the question remains open as to the actual tipping point at which the individual begins to develop other harmful psychological and health consequences. In addition, the interviews and observations were limited to one fitness center, specific mean college-age sample, and were conducted by the same individual. Researchers should explore objectification and self-objectification in other samples and populations of physically active vs. sedentary individuals (e.g., different cultural, ethnic and even religious backgrounds; different ages; and longitudinally across the lifespan) and in different settings in order to support or contradict the themes identified within this investigation. Also, different themes might have emerged if the interviews were conducted by different individuals. Finally, fitness centers can vary greatly in terms of their clientele (e.g., behavior, dress style), location, pricing, and services offered, therefore, the observations reported here may not generalize to other fitness centers. In the same manner, generalizability of the observations from the CPTs is not presumable due a plethora of factors such as CPT's work experiences and their clientele among others.

Despite these limitations, our study is one of the few to provide a qualitative inquiry into the potential underlying mechanisms of the self-objectification experience in the fitness center environment. In addition, it provides a preliminary framework for future studies of self-objectification in potentially body-objectifying environments. The findings of this interpretive query are especially applicable both to staff working in fitness centers (e.g., personal trainers, instructors) and to the individuals exercising in these fitness centers and/or similar environments.

Footnote

¹For the purposes of this paper, physical activity and exercise are used interchangeably.

References

- Agliata, D., & Tantleff-Dunn, S. (2004). The impact of media exposure on males' body image. *Journal of Social and Clinical Psychology, 23*(1), 7-22. doi: 10.1521/jscp.23.1.7.26988
- America's Health Rankings (2015). 2015 *Annual report. Measure: Physical activity*. Retrieved from <http://www.americashealthrankings.org/explore/2015-annual-report/measure/sedentary/state/ALL>
- Bessenoff, G. R. (2006). Can the media affect us? Social comparison, self- discrepancy, and the thin ideal. *Psychology of Women Quarterly, 30*(3), 239-251. doi: 10.1111/j.1471-6402.2006.00292.x
- Biddle, S. J. H., & Mutrie, N. (2008). *Psychology of physical activity: Determinants, well-being and interventions* (2nd Ed.). New York, NY: Routledge.
- Blanchard, C. M., Rodgers, W. M., & Gauvin, L. (2004). The influence of exercise duration and cognitions during running on feeling states in an indoor running track environment. *Psychology of Sport and Exercise, 5*, 119–133. [http://dx.doi.org/10.1016/S1469-0292\(03\)00006-2](http://dx.doi.org/10.1016/S1469-0292(03)00006-2)
- Burgess, G., Grogan, S., & Burwitz, L. (2006). Effects of a 6-week aerobic dance intervention on body image and physical self-perceptions in adolescent girls. *Body Image, 3*, 57-66. doi: 10.1016/j.bodyim.2005.10.005
- Buss, D. M. (1989). Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures. *Behavioral and Brain Sciences, 12*, 1-49. doi: 10.1017/S0140525X00023992

- Calogero, R. M. (2009). Objectification processes and disordered eating in British women and men. *Journal of Health Psychology, 14*, 394-402. doi: 10.1177/1359105309102192
- Calogero, R. M. (2012). Objectification theory, self-objectification, and body image. In T. F. Cash (Ed.), *Encyclopedia of body image and human appearance* (pp. 574-580). San Diego: Academic Press.
- Campbell, A., & Hausenblas, H. A. (2009). The role of exercise dependence for the relationship between exercise behavior and eating pathology: Mediator or moderator? *Journal of Health Psychology, 13*, 495-502. doi: 10.1177/1359105309338977
- Cash, T. F. (1990). The psychology of physical appearance: Aesthetics, attributes, and images. In T. F. Cash & T. Pruzinsky (Eds.), *Body images: Development, deviance, and change* (pp. 51-79). New York: Guilford.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th Ed). Thousand Oaks, CA: Sage.
- Darwin, C. (1859). *The works of Charles Darwin: On the origin of species*. New York, NY: New York University Press.
- DiBartolo, P. M., Lin, L., Montoya, S., Neal, H., & Shaffer, C. (2007). Are there “healthy” and “unhealthy” reasons for exercise? Examining individual differences in exercise motivations using the Function of Exercise Scale. *Journal of Clinical Sport Psychology, 1*, 93-120. Retrieved from <http://journals.humankinetics.com/journal/jcsp>
- Dunn, A. L., Trivedi, M. H., & O’Neal, H. A. (2001). Physical activity dose-response effects on outcomes of depression and anxiety. *Medicine Science in Sports and Exercise, 33*, S587-S597. Retrieved from <http://www.acsm-msse.org/>
- Festinger, L. (1954). A theory of social comparison processes. *Human relations, 7*(2), 117-140. Retrieved from <http://journals.sagepub.com/doi/pdf/10.1177/001872675400700202>
- Förster, J., & Higgins, E. T. (2005). How global versus local perception fits regulatory focus. *Psychological science, 16*(8), 631-636. doi:10.1111/j.1467-9280.2005.01586.x
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist, 56*, 218-226. <http://dx.doi.org/10.1037//0003-066X.56.3.218>
- Fredrickson, B. L., & Roberts, T. (1997). Objectification theory: Toward understanding women’s lived experiences and mental health risks. *Psychology of Women Quarterly, 21*, 173-206. doi: 10.1111/j.1471-6402.1997.tb00108.x
- Fredrickson, B. L., Roberts, T., Noll, S. M., Quinn, D. M., & Twenge, J. M. (1998). That swimsuit becomes you: Sex differences in self-objectification, restrained eating, and math performance. *Journal of Personality and Social Psychology, 75*, 269-284. doi: 10.1037/0022-3514.75.1.269
- Frisén, A., & Holmqvist, K. (2010). What characterizes early adolescents with a positive body image? A qualitative investigation of Swedish girls and boys. *Body Image, 7*, 205-212. <http://dx.doi.org/10.1016/j.bodyim.2010.04.001>
- Furnham, A., Badmin, N., & Sneade, I. (2002). Body image dissatisfaction: Gender differences in eating attitudes, self-esteem, and reasons for exercise. *The Journal of Psychology, 136*(6), 581-596. doi: 10.1080/00223980209604820
- Gervais, S. J., Vescio, T. K., Förster, J., Maass, A., & Suitner, C. (2012). Seeing women as objects: The sexual body part recognition bias. *European Journal of Social Psychology, 42*(6), 743-753. doi: 10.1002/ejsp.1890

- Gonçalves, S. F., & Gomes, A. R. (2012). Exercising for weight and shape reasons vs. health control reasons: The impact on eating disturbance and psychological functioning. *Eating Behaviors, 13*(2), 127-130. doi: <https://doi.org/10.1016/j.eatbeh.2011.11.011>
- Hallsworth, L., Wade, T., & Tiggemann, M. (2005). Individual differences in male body- image: An examination of self- objectification in recreational body builders. *British Journal of Health Psychology, 10*(3), 453-465. doi: 10.1348/135910705X26966
- Harrison, K., & Cantor, J. (1997). The relationship between media consumption and eating disorders. *Journal of Communication, 47*(1), 40-67. doi: 10.1111/j.1460-2466.1997.tb02692.x
- Hausenblas, H. A., Cook, B. J., & Chittester, N. I. (2008). Can exercise treat eating disorders? *Exercise and Sport Sciences Reviews, 36*, 43-47. <http://dx.doi.org/10.1097/jes.0b013e31815e4040>
- Hausenblas, H. A., & Fallon, E. A. (2006). Exercise and body-image: A meta-analysis. *Psychology and Health, 21*(1), 33-47. doi: 10.1080/14768320500105270
- Homan, K. J., & Tylka, T. L. (2014). Appearance-based exercise motivation moderates the relationship between exercise frequency and positive body image. *Body Image, 11*. 101-108. doi:10.1016/j.bodyim.2014.01.003
- Ingledeu, D. K., & Markland, D. (2008). The role of motives in exercise participation. *Psychology and health, 23*(7), 807-828. doi:10.1080/08870440701405704
- Jacobi, L., & Cash, T. F. (1994). In pursuit of the perfect appearance: Discrepancies among self- ideal percepts of multiple physical attributes. *Journal of Applied Social Psychology, 24*(5), 379-396.
- Kilpatrick, M., Hebert, E., & Bartholomew, J. (2005). College students' motivation for physical activity: Differentiating men's and women's motives for sport participation and exercise. *Journal of American college health, 54*(2), 87-94. doi: <http://dx.doi.org/10.3200/JACH.54.2.87-94>
- Krane, V., Choi, P. Y. L., Baird, S. M., Aimar, C. M., & Kauer, K. J. (2004). Living the paradox: Female athletes negotiate femininity and muscularity. *Sex Roles, 50*, 315-329. doi:<http://dx.doi.org/10.1023/B:SERS.0000018888.48437.4f>
- Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing*. Thousand Oaks, CA: Sage Publications.
- Kwon, Y. H., & Parham, E. S. (1994). Effects of state of fatness perception on weight conscious women's clothing practices. *Clothing and Textiles Research Journal, 12*, 16-21. doi: <https://doi.org/10.1177/0887302X9401200403>
- Langdon, S. W., & Petracca, G. (2010). Tiny dancer: Body image and dancer identity in female modern dancers. *Body Image, 7*, 360-363. <http://dx.doi.org/10.1016/j.bodyim.2010.06.005>
- Leary, M. R. (1992). Self-presentational processes in exercise and sport. *Journal of Sport and Exercise Psychology, 14*(4), 339-351. doi:10.1123/jsep.14.4.339
- Leit, R. A., Gray, J. J., & Pope, H. G. (2002). The media's representation of the ideal male body: A cause for muscle dysmorphia?. *International Journal of Eating Disorders, 31*(3), 334-338. doi: 10.1002/eat.10019
- Lepage, M. L., & Crowther, J. H. (2010). The effects of exercise on body satisfaction and affect. *Body Image, 7*, 124-130. <http://dx.doi.org/10.1016/j.bodyim.2009.12.002>
- Linder, J. R., & Daniels, E. A. (2017). Sexy vs. Sporty: The effects of viewing media images of athletes on self-objectification in college students. *Sex Roles, 1-13*. doi: 10.1007/s11199-017-0774-7

- Loland, N. W. (2000). The aging body: Attitudes toward bodily appearance among physically active and inactive women and men of different ages. *Journal of Aging and Physical Activity*, 8, 197-213. Retrieved from <http://journals.humankinetics.com/japa>
- Martin Ginis, K. A., Jung, M. E., & Gauvin, L. (2003). To see or not to see: Effects of exercising in mirrored environments on sedentary women's feeling states and self-efficacy. *Health Psychology*, 22, 354-361. doi: 10.1037/0278-6133.22.4.354
- Martins, Y., Tiggemann, M., & Kirkbride, A. (2007). Those speedos become them: The role of self-objectification in gay and heterosexual men's body image. *Personality and Social Psychology Bulletin*, 33(5), 634-647. doi: 10.1177/0146167206297403
- Melbye, L., Tenenbaum, G., & Eklund, R. (2005). Self-objectification and exercise behaviors: The mediating role of social physique anxiety. *Journal of Applied Behavioral Research*, 12, 196-220.
- Miner-Rubino, K., Twenge, J. M., & Fredrickson, B. L. (2002). Trait self-objectification in women: Attractive and personality correlates. *Journal of Research in Personality*, 36(1), 147-172. doi: 10.1006/jrpe.2001.2343
- Mond, J. M., Hay, P. J., Rodgers, B., & Owen, C. (2006). An update on the definition of "excessive exercise" in eating disorders research. *International Journal of Eating Disorders*, 39, 147-153. <http://dx.doi.org/10.1002/eat.20214>
- Noll, S. (1996). *The relationship between sexual objectification and disordered eating: Correlational and experimental tests of body shame as a mediator*. Unpublished doctoral dissertation, Duke University, Durham, NC.
- Noll, S. M., & Fredrickson, B. L. (1998). A mediation model linking self-objectification, body shame, and disorder eating. *Psychology of Women Quarterly*, 22, 623-636. doi: 10.1111/j.1471-6402.1998.tb00181.x
- Oehlhof, M. E. W., Musher-Eizenman, D. R., Neufeld, J. M., & Hauser, J. C. (2009). Self-objectification and ideal body shape for men and women. *Body Image*, 6(4), 308-310. doi: 10.1016/j.bodyim.2009.05.002
- Patton, M. Q. (2015). *Qualitative research and evaluation methods* (4th Ed.). Thousand Oaks, CA: Sage.
- Physical Activity Council (2016). The Physical Activity Council's annual study tracing sports, fitness, and recreation participation in the US. Retrieved from <https://www.documentcloud.org/documents/2992593-Physical-Activity-Council-2016-Participation.html>
- Prichard, I., & Tiggemann, M. (2005). Objectification in fitness centers: Self-objectification, body dissatisfaction, and disordered eating in aerobics instructors and aerobic participants. *Sex Roles*, 53, 19-28. doi: 10.1007/s11199-005-4270-0
- Prichard, I., & Tiggemann, M. (2008). Relations among exercise type, self-objectification, and body image in the fitness centre environment: The role of reasons for exercise. *Psychology of Sport and Exercise*, 9, 855-866. doi: 10.1016/j.psychsport.2007.10.005
- Prichard, I., & Tiggemann, M. (2012). Predictors of self-objectification in new female fitness center members. *Women in Sport and Physical Activity Journal*, 21(1), 24-32. doi: 10.1123/wspaj.21.1.24
- Quinn, D. M., Kallen, R. W., Twenge, J. M., & Fredrickson, B. L. (2006). The disruptive effect of self-objectification on performance. *Psychology of Women Quarterly*, 30, 59-64. doi: 10.1111/j.1471-6402.2006.00262.x
- Reed, J., & Ones, D. S. (2006). The effect of acute aerobic exercise on positive activated affect: A meta-analysis. *Psychology of Sport & Exercise*, 7, 477-514. doi:10.1016/j.psychsport.2005.11.003

- Reel, J. J., Greenleaf, C., Baker, W. K., Aragon, S., Bishop, D., Cachaper, C., ... & Hattie, J. (2007). Relations of body concerns and exercise behavior: A meta-analysis. *Psychological reports, 101*(3), 927-942. doi: 10.2466/pr0.101.3.927-942
- Rethorst, C. D., Wipfli, B. M., & Landers, D. M. (2009). The antidepressive effects of exercise. *Sports Medicine, 39*(6), 491-511. doi: 0112-1642/09/0006-0491
- Ridgeway, R. T., & Tylka, T. L. (2005). College men's perceptions of ideal body composition and shape. *Psychology of Men & Masculinity, 6*(3), 209. doi: <http://dx.doi.org/10.1037/1524-9220.6.3.209>
- Rudd, N. A., & Lennon, S. J. (2000). Body image and appearance-management behaviors in college women. *Clothing and Textiles Research Journal, 18*, 152–162. doi: 10.1177/0887302X0001800304
- Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing & Health, 23*, 334–340. doi:10.1002/1098-240X(200008)23:4<334::AID-NUR9>3.0.CO;2-G
- Sandelowski, M. (2002). Reembodying qualitative inquiry. *Qualitative Health Research, 12*(1), 104-115. Retrieved from <http://journals.sagepub.com/doi/pdf/10.1177/1049732302012001008>
- Sharma, U., & Black, P. (2001). Look good, feel better: Beauty therapy as emotional labour. *Sociology, 35*, 913-931. doi:10.1177/0038038501035004007
- Singh, D. (1993). Adaptive significance of female physical attractiveness: Role to waist-to-hip ratio. *Journal of Personality and Social Psychology, 65*, 293-307. doi:10.1037/0022-3514.65.2.293
- Smith, B., & Sparkes, A. C. (2009). Narrative inquiry in sport and exercise psychology: What can it mean and why might we do it?. *Psychology of Sport and Exercise, 10*, 1-11. doi:10.1016/j.psychsport.2008.01.004
- Strelan, P., & Hargreaves, D. (2005). Reasons for exercise and body esteem: Men's responses to self-objectification. *Sex Roles, 53*, 495-503. doi:10.1007/s11199-005-7137-5
- Strelan, P., Mehaffey, S. J., & Tiggemann, M. (2003). Brief report: Self-objectification and esteem in young women: The mediating role of reasons for exercise. *Sex Roles, 48*, 89-95. doi:10.1023/A:1022300930307
- Swami, V., & Tovée, M. J. (2009). A comparison of actual-ideal weight discrepancy, body appreciation, and media influence between street- dancers and non-dancers. *Body Image, 6*, 304–307. doi:10.1016/j.bodyim.2009.07.006
- Symons, D. (1979). *The evolution of human sexuality*. New York, NY: Oxford University Press.
- Szymanski, D. M., Carr, E. R., & Moffitt, L. B. (2010). Sexual objectification of women: Clinical implications and training considerations. *The Counseling Psychologist, 39*(1), 107-126. doi:10.1177/0011000010378450
- Tanaka, J. W., & Farah, M. J. (1993). Parts and wholes in face recognition. *The Quarterly Journal of Experimental Psychology, 46*(2), 225-245. doi:10.1080/14640749308401045
- Thøgersen-Ntoumani, C., Ntoumanis, N., Cumming, J., Bartholomew, K. J., & Pearce, G. (2011). Can self-esteem protect against the deleterious consequences of self-objectification for mood and body satisfaction in physically active female university students? *Journal of Sport and Exercise Psychology, 33*, 289-307. Retrieved from <http://journals.humankinetics.com/jsep>
- Thorne, S. (2008). *Interpretive description*. Walnut Creek, CA: Left Coast Press.
- Thorne, S., Reimer Kirkham, S., & O'Flynn-Magee, K. (2004). The analytic challenge in interpretive description. *The International Journal of Qualitative Methods, 3*(1), 1-21. doi: 10.1177/160940690400300101

- Tiggemann, M., & Andrew, R. (2012). Clothing choices, weight, and trait self-objectification. *Body Image*, 9(3), 409-412. doi: 10.1016/j.bodyim.2012.02.003
- Tiggemann, M., & Lacey, C. (2009). Shopping for clothes: Body satisfaction, appearance investment and clothing selection in female shoppers. *Body Image*, 6, 285-291. doi: 10.1016/j.bodyim.2009.07.002
- Tiggemann, M., & McGill, B. (2004). The role of social comparison in the effect of magazine advertisements on women's mood and body dissatisfaction. *Journal of Social and Clinical Psychology*, 23(1), 23-44. doi: 10.1521/jscp.23.1.23.26991
- Tiggemann, M., & Williamson, S. (2000). The effect of exercise on body satisfaction and self-esteem as a function of gender and age. *Sex Roles*, 43, 119-127. doi: 10.1023/A:1007095830095
- Tylka, T. L. (2011). Positive psychology perspectives on positive body image. In T. F. Cash & L. Smolak (Eds.), *Body image: A handbook of science, practice, and prevention* (2nd ed., pp. 56-64). New York: Guilford Press.
- Tylka, T. L., & Sabik, N. J. (2010). Integrating social comparison theory and self-esteem within objectification theory to predict women's disordered eating. *Sex Roles*, 63(1-2), 18-31. doi: 10.1007/s11199-010-9785-3
- U.S. Department of Health and Human Services. (2008-2015). Physical activity guidelines for Americans: Summary. Retrieved from <https://health.gov/paguidelines/guidelines/summary.aspx>
- United States Department of Labor (2003-2006). Sports and exercise. Retrieved from <https://www.bls.gov/spotlight/2008/sports/>
- Vocks, S., Hechler, T., Rohrig, S., & Legenbaugher, T. (2009). Effects of a physical exercise session on state body image: The influence of pre-experimental body dissatisfaction and concerns about weight and shape. *Psychology and Health*, 6, 713-738. <http://dx.doi.org/10.1080/08870440801998988>
- Wood-Barcalow, N. L., Tylka, T. L., & Augustus-Horvath, C. L. (2010). "But I like my body": Positive body image characteristics and a holistic model for young-adult women. *Body Image*, 7, 106-116. doi:10.1016/j.bodyim.2010.01.001