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# SEXY FOR ME: ENJOYMENT OF SEXUALIZATION, EMBODIMENT, AND PSYCHOLOGICAL WELL-BEING IN RECREATIONAL POLE DANCERS

by

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A Dissertation

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

Grand Forks, North Dakota

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Kelly Cuccolo 4.6.21

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To my parents, my friends, and my partner,

I love you all.

#### ABSTRACT

Purpose: Recreational pole dancing may have dual implications for women's mental health. Previous research (Pellizzer, et al., 2016) conducted under the framework of Objectification Theory has reported that enjoyment of sexualization can exert negative effects on body image through self-objectification and positive effects on body image through embodiment. The purposes of this study were to a.) replicate findings from Pellizer et al., (2016) and b.) to examine the theorized outcomes of Objectification Theory not addressed by previous research (eating disorder (ED) symptomatology, depressive affect).

Methods: Recreational pole dancers (N = 82) were recruited from five recreational pole dancing schools. Participants completed a demographics form, measures of ED symptomatology, depressive symptomatology, positive body image, enjoyment of sexualization, and self-objectification. Participants also provided information on their recreational pole dance practice.

Results: The findings of Pellizer et al., (2016) did not replicate in this sample. Participants generally scored significantly higher than community samples but lower than clinical samples on measures of ED symptomatology. Participants scored significantly higher on depressive symptomatology than community samples and but lower than clinical samples. When controlling for physical activity results generally remained unchanged – self-objectification and embodiment did not mediate the relationship between enjoyment of sexualization and the outcome variables. Generally, enjoyment of sexualization was significantly associated with positive body image, and negatively associated with ED and depressive symptoms; self-objectification was negatively associated with positive body image, and positively associated with ED and depressive symptoms; embodiment was positively related to positive body image and negatively related to ED and depressive symptoms.

Conclusion: Recreational pole dancing may have dual and conflicting associations with women's mental health depending on if self-objectification, or embodiment is emphasized. Findings generally align with Objectification Theory in such that self-objectification was associated with deleterious outcomes. Given that participants broadly described recreational pole dancing as beneficial for their mental health, instructors should be mindful to maximize embodying elements during class. Future work should focus on how discrepancies between women's current and ideal bodies influence observed relationships. Additionally, research should examine changes in variables over time to understand the temporal relationship between variables.

# CHAPTER 1 INTRODUCTION

The sexualization and objectification of girls and women is associated with deleterious outcomes (e.g., eating disorders, body shame, depression; Fredrickson & Roberts, 1997; Muehlenkamp & Saris–Baglama, 2002; Noll & Fredrickson, 1998). However, despite such outcomes some women seek out and enjoy sexualization (Liss et al., 2011). One possible explanation is that certain types of sexualizing activities also promote feelings of empowerment, body functionality, and "being in" the body. Notably embodiment, focusing on how the body feels/functions, has been negatively associated with eating disorder (ED) symptomatology, body shame, and self-objectification (Alleva et al., 2015; Avalos, Tylka, & Wood-Barcalow, 2005; Cotter et al., 2015). Thus, it is possible that embodying experiences may be useful for exploring women's experiences of their bodies and subsequent psychological outcomes associated with such experiences (Piran, 2016).

Physical activity provides one avenue which can be used to promote embodiment and is broadly associated with positive physical and psychological outcomes (e.g., Biddle et al., 2019; Kandola et al., 2019; Piercy et al., 2018). However, physical activity is not immune to sexualization and objectification (Burroughs & Nauright, 2000; Krane et al., 2004). Costuming, emphasis on appearance, and attraction of the male gaze can all transform physical activity into an opportunity for sexualization and objectification (Krane et al., 2004). One activity in particular which encompasses sexualization, objectification, and embodiment is recreational pole dancing. The costuming and stereotypes surrounding pole dancing suggests it is sexualizing and objectifying, whereas the focus on physical skill suggests it is embodying. Pellizzer, Tiggemann, and Clark (2016) conducted research that showed recreational pole dancers have lower self-objectification, higher positive body image, and higher embodiment compared to controls (non-pole-dancing undergraduate students). Further, authors noted that embodiment and self-objectification mediated the relationship between enjoyment of sexualization and positive body image. Specifically, embodiment was associated with increased positive body image, while self-objectification was associated with decreased positive body image. In other words, it would appear that enjoyment of sexualization is associated with deleterious outcomes (i.e., reduced positive body image) if self-objectification is also present, whereas enjoyment of sexualization is associated with positive outcomes (i.e. increased positive body image) if embodiment is present. Unfortunately, there were several notable gaps in the research that need to be addressed in order to better understand the association of, sexualization, objectification, and embodiment with psychological health.

The current study aims to address these gaps. The current study will replicate Pellizzer, Tiggemann, and Clark (2016), with several notable extensions. First, Objectification Theory posits that objectification leads to ED and depressive pathology (Fredrickson & Roberts, 1997). Measures assessing ED and depressive pathology will be used in the current study to examine their relationship to sexualization, objectification, and embodiment in recreational pole dancers. Second, authors did not control for general level of physical activity; it is possible that high levels of physical activity in recreational

pole dancers is responsible for the positive findings, not pole dancing itself. Third, we will gain a more nuanced understanding of the aforementioned relationships by gaining more information on the style and competition level of the recreational pole dancers. This study has four hypotheses: 1.) the findings of Pellizzer, Tiggemann, and Clark (2016) will replicate in this sample, 2.) recreational pole dancers will exhibit lower levels of ED and depressive pathology when compared to established norms, 3.) embodiment will mediate the relationship between enjoyment of sexualization and eating disorder, and depressive pathology respectively, 4.) when controlling for physical activity, all relationships will hold. The proceeding sections of this paper will detail the impact of sexualization, objectification, and enjoyment of sexualization on the psychological health of women, and mediating and protective factors (physical activity, body image, and embodiment) will also be detailed.

#### The Sexualization of Girls and Women

Western culture has become increasingly sexualized, most noticeably, via media influence. At the societal and cultural level one can conceptualize this sexualization as a powerful focus on sexual concepts and constructs (e.g., sexual behaviors, products, attitudes, identities, etc.) across a range of domains (e.g., texts, films, regulations, etc.; Attwood, 2006). Women and girls are subject to increased sexualization relative to men (APA, 2010; Gill, 2003). The necessity of awareness and research on the sexualization of girls is so prominent that The American Psychological Association (APA) created a task force to focus on cultural sexualization of girls. The task force notes that sexualization occurs through media (e.g., adult women marketing products dressed as children), merchandise (e.g., thongs, clothes with innuendos), and interpersonal relationships (e.g., harassment from boys; encouragement to conform with beauty standards; sexual abuse). A recent and prominent example of the sexualization of young girls is highlighted in the inclusion of a thirteen-year-old actress (Milly Bobby Brown) in an article detailing why "TV is sexier than ever" (Louise-Smith, 2017).

Such sexualization has sociocultural impacts, and while examining the cultural effect of sexualization, one cannot understate the effect of sexualization on an individual level. Sexualization at the individual level is conceptualized as occurring when one of the following criteria are present: sexual appeal/behavior is made central to a person's value, a person is held to standards that equate narrowly defined physical attractiveness with being sexy, a person is made into a thing for others' sexual use (autonomy over action and decision making is minimized), and sexuality is inappropriately imposed on the individual (APA, 2010). The sexualization of girls and women has been associated with deleterious outcomes such as being more likely to experience sexual aggression from men (Blake, Bastian, & Denson, 2016), body shame (McKenney & Bigler, 2016a), and decreased academic performance on standardized tests (McKenney & Bigler, 2016b), to name a few.

One notable theorized consequence of sexualization for women is engagement in self-objectification. Self-objectification is when women view themselves as an observer, evaluating themselves as an object to be looked at and consumed, and results from internalizing sexualization (Pellizzer, Tiggemann, & Clark, 2016). In other words, internalized sexualization can result in women taking a "third person perspective" of themselves so that they are perpetually aware of how their body looks to others. Fredrickson and Roberts (1997) posit that self-objectification is a repercussion of being viewed by others in sexually objectifying way over a long period of time, and subsequently developed Objectification Theory to explain this phenomenon.

#### **Objectification Theory**

Objectification Theory was posited by Fredrickson and Roberts (1997) to shed light on the mental health risks of girls/women who encounter sexualization, and subsequently bring awareness to the sociocultural context in which they live. Objectification Theory is framed within the sociocultural saturation of heterosexuality. Women are often subjected to the male gaze, which although not always, often presents potential objectification (e.g.: Gervais, Holland, & Dodd, 2013). Words such as "ogle", the prominence of advertisements that focus on women's bodies, and men's sexual commentary towards women all point to a culture in which women are thought of *as* bodies (Fredrickson & Roberts, 1997). These cultural theorizations are supported by empirical research showing that women are often reduced to sexual body parts (see Gervais, et al., 2012). Indeed, this reduction of the whole woman, to specific parts, implies that her body is a thing for others' use/consumption (Fredrickson & Roberts, 1997).

Consequently, women may habitually engage in the monitoring/surveillance of their bodies and how they appear to others, disrupting their conscious experience of the body, and demanding undue attentional resources (Fredrickson & Roberts, 1997; McKinley & Hyde, 1996). The consequences of such objectification and preoccupation with the appearance of body were hypothesized by authors to impact: shame, anxiety, motivational states, and awareness of internal bodily states (Fredrickson & Roberts, 1997). These factors contribute to the predominantly female experience of unipolar depression, sexual dysfunction, and EDs. Sociocultural ideals of women's bodies are impossible for most women to achieve (by healthy means). The discrepancy between the current self and the ideal-self results in negative self-evaluation, which paired with subjection to others' gaze, results in feeling of shame (McKinley & Hyde, 1996).

Authors also surmise that a culture of objectification, leading to subsequent selfobjectification results in both appearance anxiety and safety anxiety. Ambiguity over when and how the body will be evaluated creates appearance anxiety regarding potential exposure, resulting in the checking and adjusting of one's appearance. Anxiety over safety concerns arise from a culture that simultaneously demands attractiveness from women and demeans them. Attractive women "provocatively" dressed women, and those who have experienced sexual assault are all perceived as vulnerable to sexual aggressions (Blake, Bastian, & Denson, 2016). In other words, "because to some degree all women in our culture face the possibility of sexual victimization, they need to be attentive to the potential for sexually motivated body harm" (Fredrickson & Roberts, 1997, p. 183).

Objectification theory also posits that objectification can interrupt experiences of peak motivational states (i.e., flow, feeling "in the zone", etc.). Peak motivational states may be limited through two avenues 1.) self-objectification creates a form of self-consciousness because individuals are viewing themselves through another's' perspective, and 2.) movement draws attention to the body which may increase the potential for objectification. These two factors together restrict women's ability to act freely, and without self-consciousness.

Finally, Fredrickson and Roberts (1997) surmise that the attentional resources demanded of women to attend to their outer bodily appearance negate their ability to attend to their inner body experience, thus, resulting in reduced awareness of internal body states. Research has noted that gender differences exist in perceptions and use of internal states (Roberts & Pennebaker, 1995). In closing, Fredrickson and Roberts (1997) posit that feelings of shame, anxiety, and reduced peak motivational states may contribute to the predominantly female experience of unipolar depression, sexual dysfunction, and eating disorders.

#### Consequences of Self-Objectification

The hypothesized consequences of sexualization and subsequent self-

objectification have been largely supported by empirical research. Mainly, there is a body of evidence associating sexualization and self-objectification with negative body image (Slater, & Tiggemann, 2016) including body shame and appearance anxiety (Szymanski & Henning, 2007), disordered eating (Muehlenkamp, & Saris–Baglama, 2002; Petersen, & Hyde, 2013), dieting (Tiggemann & Slater, 2015), and depressed mood (Tiggemann, & Kuring, 2004). Indeed, self-objectification significantly predicts, and accounts for a large proportion of variance in disordered eating among college students (Muehlenkamp, & Saris–Baglama, 2002).

Using structural equational modeling Muehlenkamp and Saris–Baglama (2002) investigated the relationship between self-objectification, internal awareness, depression, and disordered eating (bulimic symptoms, and restrictive eating) among college women. Researchers were interested in the aforementioned variables as self-objectification theory posits that viewing the self from a third person's perspective can mitigate an individual's ability to recognize and tend to affective and somatic needs, thus increasing their risk for disordered eating and depression. The model indicated that there was a significant direct path from self-objectification to both restrictive eating and bulimic symptoms respectively, a significant path from self-objectification to depressive symptoms, and that depressive symptoms mediated the relationship between self-objectification and bulimic symptoms (but not restrictive eating). Also notable was that the relationship between depression and self-objectification was mediated by internal awareness, suggesting, that self-objectification does impact an individual's ability to accurately label and interpret internal feeling states which may contribute to affective disturbance. Further, 64% of the variance in bulimic symptoms, and 74% of the variance in restrictive eating was accounted for by the model. This suggests that self-objectification contributes directly, and indirectly (through depression) to both bulimic and restrictive components of disordered eating.

Other research has noted that self-objectification appears to negatively impact women's well-being by leading to depressive symptoms through way of increasing body shame, body monitoring (how often one experiences their body according to how it looks), and appearance anxiety (Szymanski & Henning, 2007). As such, empirical research has repeatedly identified self-objectification as a factor contributing to both depressive and ED symptomatology.

#### **Enjoyment of Sexualization**

Despite the negative consequences of sexualization and subsequent selfobjectification, some women seek out sexualization, and enjoy it (Liss et al., 2011). Attraction is often conflated with sexiness ("sex appeal") and our society offers benefits to those who are perceived as attractive (e.g., temporary self-esteem boosts, warmth from others). As such, women may enjoy being sexualized because it is perceived as an indicator of their attractiveness, and hence, signals societal rewards. Given such, Liss et al., (2011) state "enjoyment of sexualization occurs when women find appearance-based sexual attention from *men* to be positive and rewarding" (p. 56).

There is a current debate regarding the power balance of enjoyment of sexualization. Some feminist scholars argue that taking ownership of one's sexuality is empowering (Koedt, 1970; Lerum, & Dworkin, 2009) whereas others note that this enjoyment and empowerment is still occurring within a patriarchal frame that determines what is "sexy" and hence, is oppressive (Gill, 2008). Indeed, this recent shift that aims to sexually empower women, and capitalize on their sexuality has been conceptualized by some 'disguise sexism' or 'sexism with an alibi' given the predominance of the sexualization of women's bodies in new and shifting ways (Williamson, 2003 as cited in Attwood, 2006). Liss et al. (2011) take the perspective that enjoying sexualization is false empowerment because while it may be subjectively empowering it reinforces that women are sex objects, and perpetuates objectification. Across three studies Liss et al (2011) empirically investigated enjoyment of sexualization by creating a quantitative measure to assess the construct, and subsequently assessing outcomes associated with endorsing enjoyment of sexualization.

The Enjoyment of Sexualization Scale (ESS) created by Liss et al., (2011) was found to be positively associated with body surveillance, body shame, selfobjectification, self-worth that is contingent upon appearance, engagement in sexualizing behaviors, and interpersonal instances of sexual objectification among heterosexual

women. A follow up study reported by Liss and colleagues (2011) offered a theoretical exploration of the construct of enjoying sexualization. Women who enjoyed sexualization were more likely to value traditional gender roles, be more conservative, and hold more (benevolent and hostile) sexist beliefs, but simultaneously deemphasize the importance of modesty and sexual fidelity (traditional gender role beliefs). Further, as with self-objectification, enjoyment of sexualization was positively related to disordered eating. In regard to predicting who enjoys sexualization – body surveillance, hostile sexism, benevolent sexism, and endorsement of traditional feminine norms were significant predictors, meaning that women who were higher in body surveillance, endorsed more hostile and benevolent sexist beliefs, and more strongly adhered to traditional feminine norms were more likely to enjoy sexualization.

However, there are several significant caveats that were noted when authors were examining the impact of enjoyment of sexualization on negative psychological outcomes (depression, disordered eating, reduced self-esteem). First, when controlling for body surveillance, there was no main effect of enjoyment of sexualization on disordered eating – only the interaction between surveillance and enjoyment of sexualization was significant. Second, lower levels of surveillance but higher levels of enjoyment of sexualization predicted greater self-esteem. Third, enjoyment of sexualization did not significantly predict depression. Fourth, when controlling for body shame, enjoyment of sexualization did not predict disordered eating. For women who enjoyed sexualization, body shame was more strongly related to disordered eating than for women who did not

enjoy being sexualized. Finally, lower levels of body shame but higher levels of enjoyment of sexualization were related to higher self-esteem. As such, it would appear that while enjoyment of sexualization is associated with deleterious psychological variables (sexist beliefs, self-objectification, body shame, body surveillance etc), enjoyment of sexualization may itself not be solely driving outcomes such as depression and disordered eating.

Rather, it is likely that enjoyment of sexualization may impact depression and disordered eating through body shame and surveillance (a mediation). It may be that when women do not meet societal ideals, their psychological health suffers, and depression and disordered eating are consequences of the discrepancy between the current self and ideal self. As such, constructs that protect against body shame, surveillance, and self-objectification, may prevent negative outcomes (disordered eating, depression) while retaining positive ones (higher self-esteem). This research additionally speaks to the complex nature of enjoyment of sexualization and psychological health.

#### Feminist Perspectives on Sexual Empowerment and Enjoying Sexualization

When discussing enjoyment of sexualization, it is important to keep in mind the broader sociocultural context in which women's sexual empowerment is occurring. While promoting equal and diverse sexualities for girls/women can be considered a central tenant of feminist ideology, the perspectives on how such opportunities should be promoted and conceptualized varies both across differing waves of feminism and between feminist scholars (Gavey, 2012). Often, these perspectives vary in their emphasis on individual empowerment relative to the societal promotion of gender equality and empowerment (Gavey, 2012). In other words, there is a tension in valuing, appreciating, and promoting individual empowerment in a society/culture that both capitalizes off of women's sexualization and subservient societal status, and places limits on sexual expression. Indeed, feminist scholars have debated both the causes and the outcomes of enjoying (and subsequently deriving empowerment form) sexualizing experiences (Lamb & Peterson, 2012). At the crux/nexus of this debate is unpacking what empowerment is and if it is possible in a culture that so vehemently prescribes an idealized version of sexuality to women. Is subjective empowerment based on selfreported pleasure, desire, and choice "legitimate" empowerment when concepts of pleasure, desire, and choice are grounded in patriarchal hegemony (Garvey, 2012; Lamb & Peterson, 2011)? The world in which women live is particularly male dominated, and subsequently it is possible that anything women themselves find sexually empowering is done so through a male lens of what is deemed sexually attractive (Lamb & Peterson, 2011). In this sense, sexual emboldenment is mistaken for sexual empowerment. Women might have newfound courage to try new/different sexual experiences, but this is not equivalent to gaining power or rights as an individual or as a gender. Empowerment is complicated because the same act can be empowering on an individual level and limiting on a societal level (e.g., stripping is a profession in which women can typically out earn men and gain financial stability, but it also reinforces the notion that their bodies are things for others' consumption).

Various waves of feminism have dealt with this issue differently due to either an emphasis on politic power and group (gender) progress or an emphasis on individual rights. Modern day feminism has been conceptualized as starting (i.e., first wave) with Mary Wollstonecraft's *A Vindication of the Rights of Women*, alongside suffrage efforts and fights to end enslavement. Here, the focus was on highlighting women's subservience to men and taking political action to advance women's rights. Notably, within this first wave, the first birth control clinic was founded and what would eventually become Planned Parenthood was established (Tier-Bieniek, 2015).

Second wave feminist scholars conceptualize women's sexual empowerment as commodified (Gill, 2008), and reflecting the male hegemonic view of female sexuality. With this wave of feminism, a shift was observed towards politic activism in such that the focus was on progression for the gender (e.g., advancing reproductive rights, Equal Rights Amendment, promotion of women into the workforce). Second wave feminism can be conceptualized by the phrase "the personal is political" (Trier-Bieniek, 2015, p. xvi) because feminists in this era were mainly concerned with the advancement of women's standing in society. A central tenant of second wave feminism attributed to Simone de Beauvoir was that women have stayed subordinate to men due to complacency. This, along with the work of women's rights pioneers such as Betty Friedman, led to a powerful movement that fought against issues such as pornography, prostitution, and restricted birth control and contraception access with urgency to reject patriarchal societal norms. Specifically, in regards to women's sexual

health/empowerment the second wave of feminism brought several notable advances. Roe V. Wade passed in the supreme court in 1973, establishing a woman's constitutional right to abortion. Laws against marital rape were passed. Kate Millett published *Sexual Politics* which critiqued sexual theories posited by male researchers as being biased, political, and misogynistic. Additionally, a narrative addressing issues with the male gaze and its prevalence in film was published by Laura Mulvey (Trier-Bieniek, 2015). However, it is worth highlighting that there was a significant lack of intersectionality in second wave feminism. Rather, aspects of race and class were often ignored in the context of women's rights. This would be addressed, and ultimately influence, the next wave.

Third wave feminism focused on intersectionality, using pop culture as activism (e.g., Riot Grrrl), and emphasizing the autonomy of women (Nguyen, 2013; Trier-Bieniek, 2015). Third wave feminism has been critiqued, however, for placing too much emphasis on the individual; neutralizing the political force of second wave feminism (Munro, 2013). Women post-second wave feminism had the privilege of being able to get birth control, playing sports, voting, etc. In other words, feminism was not being established – it was present in daily life, leading to some complacency in which emphasis on integrated collaborative political force was neutralized, and individual conceptualizations of feminism became the focus. This era saw sexual empowerment conceptualized as an expression of women's bodily autonomy. Here, women wanted to reclaim femininity (if they so choose) and reconnect with female pleasures – the

emphasis though, being on a women's ability to decide what she believed to be appropriate for her, and that the ability and right to choose was what was important. As stated by Nguyen, the third wave is "not combating institutional issues but focuses on girls experimenting with personal choice" (p.158).

Some scholars surmise the emergence of a fourth wave of feminism (Munro, 2013). This developing wave of feminism focuses on examining the impact of inequality globally and addressing the influence of technology and digital culture (Munro, 2013; Tier-Bieniek, 2015). Here, we see feminism being moved from academia to public spheres (e.g., feminist blogs), while highlighting the heterogeneity of gender identities, experiences, and expression. When multiple identities are considered in tandem, one must address the possibility that an act that may be empowering to one person or within a specific situation may be disempowering to other people or under other circumstances.

Ultimately based on the context in which each wave emerged and the tenants of each we can see that first and second wave feminism would conceptualize enjoyment of sexualization and engagement in self-sexualizing behaviors as detrimental to women's standing in society. These behaviors, although they feel good, only feel good because women have been socialized to deem male norms as attractive and enjoyable. Further, such behavior does nothing to advance women's standing or place in society. Third wave, and perhaps this fourth wave as well, might see this as an issue of choice. Every woman has a right to choose what she does with her body, and further, it is wrong for one to tell another how to feel.

Taking such perspectives into consideration becomes important when addressing the theoretical influence of the male gaze, as well as practical and psychological implications. Women's sexual liberation and empowerment has become increasingly represented in pop culture, so much so, that some argue that it is commodified (Gill, 2008). Pop culture serves to reinforce and support the narrative of those in power (Tier-Bieniek, 2015), which in this instance is the patriarchy. As such, women's exposure to (and subsequent conceptualization of) "sexual empowerment" is grounded in male idealized versions of female sexuality. This immersion in heteronormative ideals of sexuality attracts the male gaze and both reaffirms and normalizes women's status as sexual objects (Nguyen, 2013). In this context, the male gaze refers to the phenomenon by which men direct their eyes at women's bodies to derive sexual gratification (Calogero, 2004).

Ponterotto (2016) argues that through dominant power structures' use of the media society comes to accept a "norm" for bodily appearance alongside a particular set of characteristics, behaviors, and outcomes that are "normative" to that appearance. Indeed, the pursuit of this normative body (i.e., fit and thin) is not done for intrinsic pleasure but most often for the implicit associations with having such a body determined by the patriarchal society (i.e. acceptance, sex, work, longevity). As such, the

empowerment and agency that is marketed to women serves to create objects to look act (to be subjected to the male gaze). Further, this heteronormative version of female sexual empowerment is inherently harmful because it "takes up space" for other identities such as lesbian and bisexual women (Siebler, 2015). In other words when there is only one mainstream narrative, other identities and narratives become deviant and underrepresented.

Along a similar vein, self-objectification theory posits that it is specifically the sexually objectifying male gaze which becomes internalized which is harmful. Theoretical musing, and cultural critiques aside, empirical research has found support for the deleterious effects of the male gaze on women's psychological well-being. For example, women who anticipate that they will be subjected to a male gaze indicate greater body shame and physique anxiety than women who anticipate a female gaze (Calogero, 2004). Retrospectively, reported subjection to an objectifying gaze is positively associated with body surveillance and internalization of a thin ideal (Kozee et al., 2007). Another line of research by Gervais, Vescio, and Allen (2011) demonstrated that an objectifying gaze significantly degraded objective test performance for women. In this study both men and women were randomized to either an objectifying gaze condition or a control condition where they completed an interview on teamwork, and a math test with a confederate of the opposite sex. In the objectifying condition confederates were trained to give objectifying gazes and tell the participant that they were good looking. Women in the objectifying gaze condition performed significantly worse on the math test

than women in the control condition. There was no difference in men's math test performance between conditions. Further, women in the objectifying gaze condition performed worse than men in the objectifying gaze condition but both genders performed similarly in control conditions. Authors hypothesize that the objectifying gaze triggers stereotype threat for women (but not men) such that women perceive their value to come from looks and not performance.

Some research does indicate that women compare themselves to and evaluate other women, which results in negative affect. However, this research generally asks women to look at thin-idealized images or is explicitly focused on eating and appearance (Calogero, 2004; Striegel-Moore & Smolak, 2001). In these instances, the negative effect of a "female gaze" may moreso reflect negative affect that results from a discrepancy between a women's current self and a societal ideal to which she does not measure up to. Said another way, a woman may feel poorly about herself in response to another woman because she has internalized the male gaze and decides she does not "measure up" appearance wise.

Scholars also note that the explicitness of images may serve to promote sociosexual attitudes and acceptance of the male gaze through script activation. Wright, Arroyo, and Bae (2015) noted women exposed to more explicit images (i.e. breasts and genitals exposed) indicated stronger acceptance of the male gaze compared to women who were exposed to less explicit images (i.e. breasts and genitals covered). They argue

that images provide implicit scripts which suggest that it is both normal and appropriate for men to direct a sexualized gaze at women; explicitness may influence this effect because the more a women's body is exposed the stronger the message regarding the normality and appropriateness of the male gaze. If explicitness of an image does indeed impact acceptance of a male gaze, it is logical to reason that this may be extended to behaviors.

What has become somewhat detached from these theoretical musings is the impact of subjective empowerment or sexual emboldenment on the women's psychological health/well-being. Although the research is limited, engagement in sexualized behaviors has been positively associated with sexual assertiveness (e.g., "I communicate my sexual desires to my partner"), and sexual self-esteem (e.g., "I think of myself as a very good sexual partner") and negatively associated (although not significantly so) with sexual depression (e.g., "I am depressed about the sexual aspects of my life"; Erchull & Liss, 2014).

#### **Sports and Physical Activity as Protective Factors**

Notably, sports participation has been associated with decreased selfobjectification among girls (Slater, & Tiggemann, 2011). Given that self-objectification focuses on the individuals' experience of the body through an outsider's lens, experiences that enhance individual feelings of bodily autonomy, and body functionality may help to reduce self-objectification. In a longitudinal study spanning one year, Slater and Tiggeman (2012), examined the impact of time since menarche and sports participation as predictors of self-objectification, body shame, and disordered eating. Sports participation was conceptualized as frequency (hours per week) of participation in organized sport/exercise. Self-objectification, body shame, and disordered eating were assessed with self-report measures. Sports participation at Time 1 was negatively related to self-objectification at Time 2. Also notable were findings that girls who played any sport at Time 1 had somewhat lower scores on self-objectification at Time 1 than girls who did not play at Time 1. This suggests that some element of sports participation is beneficial for girls' well-being and may exert a buffering effect on self-objectification, however, what aspect of sports participation is beneficial is not clear from the current methodology.

# Focusing on the Good: Protective Factors, Positive Body Image, and Self-Objectification

While the research surrounding body dissatisfaction (negative body image) indicates an association between sexualization and self-objectification, we know relatively little about protective factors that may buffer against self-objectification broadly, and the self-objectification and body dissatisfaction link, specifically. Recently, there has been a shift in the eating and body image literature towards investigating positive body image (Piran & Teall, 2012; Tylka, 2011). While the field has an understanding of what constitutes negative body image, its predictors, mediators, methods of prevention and treatment, etc., the field is less well equipped to promote positive body image (Tylka, & Wood-Barcalow, 2015).

#### **Positive Body Image**

Scholars conceptualize positive body image as including components of selfworth and having an appreciation for the body's functionality (Tylka, & Wood-Barcalow, 2015). More specifically, positive body image is commonly defined as love and respect for ones' body, This love and respect has several significant components including: appreciation for the uniqueness and functionality of the body, acceptance and admiration for the body (including aspects that do not align with societal ideals), feeling beautiful, comfortable, and/or confident in ones' skin, emphasizing the body's strengths rather than ruminating on imperfections, and filtering information such that negative information about the body is de-emphasized, and positive information is internalized (Tylka, & Wood-Barcalow, 2015; Wood-Barcalow et al., 2010).

As such, positive body image is a multifaceted concept consisting of aspects such as body appreciation (i.e. appreciating the features, functionality, and health of the body), body image flexibility (i.e. threats to body image are interpreted as time-limited and the individual chooses to emphasize thoughts that value the body), functional body orientation (i.e. focusing on how the body feels as opposed to how it looks), and functional body esteem (i.e. satisfaction with what the body can do; Tylka, & Wood-Barcalow, 2015). Scholars additionally emphasize that positive body imagine is holistic in such that the multiple facets are better understood and interpreted together rather than independent of one another (Tylka, & Wood-Barcalow, 2015). Indeed, in an empirical qualitative interview with body image experts and women identified as having positive body image (self-described in combination with scores on self-report measures of appearance) all women noted that developing, fostering, and maintaining a positive body image was a conscious choice. This required a cognitive shift that included: choosing to surround themselves with like-minded women, becoming conscious and critical of unrealistic media appearance standards, focusing on the unconditional support of others, and taking pride in exhibiting love and respect for the body. Notably, women also expressed tolerance and respect for others in which they stressed the mental component of beauty – if one feels positive mentally, then many shapes and sizes can be thought of as beautiful.

As such, positive body image operates holistically in such that women who exhibit it are not passive recipients of environmental, cultural, societal/media, interpersonal, and developmental messages – they actively filter incoming messages and choose to interpret them critically and positively (if possible) and relay this mindset to others (Wood-Barcalow, Tylka, & Augustus-Horvath, 2010). Further, positive body image has trait and state elements to it, allowing it to be conceptualized as stable but malleable. In other words, in the absence of significant external influences, positive body image will remain relatively unchanged, but it can be altered through intervention efforts such as cognitive dissonance programs (Halliwell, Jarman, McNamara, Risdon, & Jankowski, 2015).

#### Positive Body Image is Distinct from Negative Body Image

Positive body image has also been theorized as distinct from negative body image, and empirical studies support that notion (Tylka, & Wood-Barcalow, 2015). Over the course of four studies Avalos and colleagues (2005) outline the construct validity and ability of their self-report measure of positive body image, the Body Appreciation Scale (BAS), to predict unique variance in well-being above and beyond current body image measurements. In study 1 the BAS was developed, and authors explored its factor structure, construct, and incremental validity with a sample of over 100 college women who ranged from 17 to 55 years of age. The initial factor analysis revealed that the BAS has a unidimensional structure, and subsequent examination of internal validity revealed an alpha of .94 and corrected item total correlations ranging from .41 to .88. In regard to construct validity the BAS was positively and significantly correlated with body esteem (i.e. satisfaction with one's body), global self-esteem, optimism, and proactive coping. The BAS was negatively and significantly correlated with measures that constitute negative body image such as body shame and body surveillance.

Finally, authors conducted a hierarchical regression to examine the ability of the BAS to predict well-being above and beyond other body image measures (e.g., body esteem, body shame, body surveillance), These results were positive, the BAS predicted global self-esteem, proactive coping, and optimism above and beyond body esteem, body shame, and body surveillance. In study 2 the factor structure of the BAS was replicated in a different sample of women, which yielded confirmatory results. Study 3 further

explored the construct and incremental validity of the BAS by administering the BAS, a global measure of self-esteem, an optimism scale, a proactive coping scale, an appearance evaluation scale, a body preoccupation scale, a body dissatisfaction measure, and an ED symptomatology assessment to over 400 college women. A scale assessing desirable responding was used to rule out the possibility that impression management was driving findings. Results were positive. The BAS was significantly and positively correlated with positive appearance evaluation, global self-esteem, optimism, proactive coping. It was weakly correlated with impression management (r = .14). The BAS was significantly and negatively correlated with body preoccupation, body dissatisfaction, and disordered eating. The BAS again uniquely predicted well-being (optimism, proactive coping, global self-esteem) above other indices of negative body image.

Finally, in study 4, the test-retest reliability of the BAS was established. College women were administered the BAS at time 1 and again three weeks later, this yielded a test-retest reliability coefficient of .90, with alphas being high at time 1 (.91) and time two (.93). As such, evidence for positive body image as a separate construct from negative body image is supported by the observation that the BAS is uniquely associated with well-being after extracting shared variance with negative body image.

Further support for the distinction between negative and positive body image comes from Tiggemann and McCourt (2013) who investigated the effect of age on positive body image, as well as the relationship between positive body image and body

satisfaction. Over 100 women were recruited and ranged in age from 18 to 75 (with a mean age of 39). These women completed the BAS, and the Body Areas Satisfaction subscale of the Multidimensional Body Self Relations Questionnaire (which asks participants to indicate their degree of satisfaction or dissatisfaction with various body areas). Authors noted a significant positive correlation between age and body appreciation. When a tertiary split based on age was conducted it was evident that the older adulthood group (51-75 years) had significantly higher levels of body appreciation than those in young (18-34) and middle (35-49) adulthood. Authors additionally noted that body appreciation was positively related to body satisfaction across the entire age range, but that the strength of the effect weakened with age. The different trajectories of body appreciation and body satisfaction with age suggest that these two constructs are not interchangeable. The independence of these constructs is further evidenced by the weakening of body satisfaction but not body appreciation with age, suggesting as women age, they may be more likely to simultaneously experience body dissatisfaction and also appreciation.

#### Positive Body Image as Protective

Along a similar vein, positive body image may be protective against deleterious outcomes that are associated with body dissatisfaction. For instance, body appreciation is inversely related to maladaptive perfectionism among college women (Iannantuono & Tylka, 2012). Given the importance body image has been given in impacting health outcomes such as healthy eating behaviors and depressive symptoms, authors wished to examine the role of body appreciation as a mediator of interpersonal and intrapersonal variables on depressive symptoms. The interpersonal and intrapersonal variables of interest were critical messages regarding food intake (as this has been noted to be associated with food preoccupation), maladaptive perfectionism (i.e., setting unrealistically high standards for one's self), and adaptive perfectionism (i.e. realistic goal setting and a preference for order). The model indicated that body appreciation negatively related to maladaptive perfectionism. Positive body image mediated the negative link from maladaptive perfectionism to intuitive eating, and from critical messages regarding food intake to intuitive eating. In other words, positive body image alters the influence of key variables on intuitive eating. This is critical given that perfectionism has long been associated with increases and maintenance of ED symptoms (Stice, 2002).

Body appreciation was also noted as a protective factor against media exposure by Halliwell (2013). Women who are prone to internalizing the thin ideal report negative outcomes (e.g., negative body image, disordered eating) especially after media exposure (specifically, thin images or images of models who encompass sociocultural appearance standards). Given that part of body appreciation is filtering information in a selfprotective way, Halliwell (2013) hypothesized that individuals high in body appreciation would not experience changes in body image after media exposure, while individuals high in thin ideal internalization would. Undergraduate women were randomized to a control condition in which they viewed product-only advertisements or a model condition in which they viewed full body shots of thin models advertising products. Participants first completed measures assessing body appreciation and thin ideal internalization on their personal computers, and came into the lab a week later to view advertisements and complete state body image (appearance self-discrepancies; what individuals would like to change about their body right now) assessments. Researchers used a median split to create groups of women high and low in thin-ideal internalization and body appreciation, respectively. Women high in thin-ideal internalization who viewed the model condition reported larger appearance discrepancies than those who viewed the control images. Body appreciation was noted to be negatively related to thin ideal internalization, and a three-way interaction between condition, level of thin ideal internalization and low on body appreciation in the model condition reported larger appearance discrepancies who were high on thin-ideal internalization and low on body appreciation in the model condition reported larger appearance discrepancies of the model condition reported larger appearance discrepancies of the way internalization and low on body appreciation in the model condition reported larger appearance discrepancies discrepancies compared larger appearance discrepancies of the model condition reported larger appearance discrepancies compared to women viewing control images.

No changes in body image were noted for women high in both thin ideal internalization and body appreciation, suggesting a protective effect of body appreciation (i.e., their body image did not take a "hit"). When examining the saliency of appearance discrepancies authors reported that a combination of high thin-ideal internalization and low body appreciation was associated with negative outcomes (e.g., higher appearance discrepancy salience when viewing models) while individuals high in both constructs exhibited less appearance discrepancy salience when viewing models. The results of this study further establish positive body image (body appreciation) as a construct that is

independent from negative body image, as it was possible for women to be both high in thin ideal internalization and body appreciation. Additionally, it points to body appreciation as a factor that can protect women from the negative consequences of thin idealized media. It appears that body appreciation represents a cognitive mechanism such that even when women "buy in" to sociocultural ideals, they may be able to minimize the impact of such environmental messages about appearance.

Similar results were obtained by Andrew, Tiggemann, and Clark (2015b) who stressed that individuals high in body appreciation did not experience body dissatisfaction after viewing thin-idealized media, and the effect may be associated with the adoption of media protective strategies. Researchers aimed to examine whether body appreciation protects against increases in body dissatisfaction in response to viewing thin-ideal advertisements, similar to Halliwell (2013). Researchers also wanted to examine possible mechanisms to explain body appreciation's protective effects, and as such, selfobjectification, social appearance comparison, and protective media strategies were measured. College women were first administered trait measures of body appreciation and media protective strategies, and eight weeks later returned and were administered measures of negative mood, state body dissatisfaction, and were shown 15 thin ideal advertisements, then completed measures of negative mood, body dissatisfaction, selfobjectification, appearance comparison, and media protective strategies.

A multiple regression analysis supported authors' hypotheses such that degree of body appreciation predicted degree of change in body dissatisfaction. Specifically, as body appreciation increased there was less change in level of body dissatisfaction after viewing media. In other words, for individuals low in body appreciation, they exhibited a significant increase in body dissatisfaction whereas for individuals high in body appreciation there was no significant change (in fact, there was a slight downward inflection in slope) in body dissatisfaction after viewing media. When mediational analyses were conducted to investigate mechanisms through which body appreciation is protective no significant effects of self-objectification or social comparison were noted. However, body appreciation was significantly positively correlated with media protective strategies – although they did not significantly predict change in body dissatisfaction. The results of this study suggest that while body appreciation is protective against body dissatisfaction, the mechanisms of such remain unclear. The usage of protective filtering mechanisms may help partially explain the effects, but more research is needed to understand how body appreciation works. Authors note that future research should seek to elucidate the protective mechanism of body appreciation and note that body appreciation may work through more "positive" avenues such as self-compassion.

Positive body image is also noted to predict beneficial outcomes related to eating. For example, Andrew, Tiggemann, and Clark (2015a) noted a positive correlation between body appreciation and intuitive eating in adolescent girls aged 12-16. Further, in a regression model body appreciation was a significant predictor of intuitive eating, and in a structural equational modeling procedure body appreciation was noted to be positively related to intuitive eating. These findings highlight positive associations of positive body image because in contrast to restrained and disordered eating practices, intuitive eating represents an individual's ability to listen to internal cues as opposed to eating in response to negative emotions or distressing situations.

Similar findings were noted among college women, and women across various age groups (Augustus-Horvath, & Tylka, 2011; Avalos, & Tylka, 2006). Specifically, Avalos and Tylka (2006) examined a model in which factors believed to contribute to body appreciation and body appreciation itself were hypothesized to influence intuitive eating in two studies. In study 1 over 100 college women were administered self-report measures of unconditional acceptance from influential others, body acceptance by others, body function, body appreciation, and intuitive eating. Authors believed that unconditional acceptance from others would allow college women to focus on how their body feels and functions as they would not need to rely on societal ideals or others' acceptance for guidance on how to regulate their bodies. This would allow them to garner appreciation for their bodies, and this appreciation would allow them to honor their body's physiological needs (i.e., engage in intuitive eating). This model was supported.

Unconditional acceptance predicted body acceptance by others. Body acceptance by others had direct paths to body function and body appreciation. Body function predicted body appreciation, and ultimately, body appreciation predicted intuitive eating

with a moderately strong coefficient of .46. In a validation study, the authors investigated the model in a sample of over 400 college women, and findings from study 1 were replicated. These findings were further validated by Augustus-Horvath and Tylka (2011) who examined the relationship between body appreciation and intuitive eating across the lifespan (emerging adults 18-25 years old; early adulthood 26-39 years old; middle adulthood 40-65 years old). Authors investigated the influence of body acceptance by others, ability to resist self-objectification, and body appreciation on intuitive eating. This was similar to Avalos and Tylka (2006) with the exception that perceived social support and body mass index were also added as factors into the model given that body mass index tends to increase with age, and social support may lead women to believe that others are accepting of them – hence both variables were hypothesized to influence body acceptance.

Indeed, a model was supported in which perceived social support and body mass index predicted body acceptance by others, body acceptance by others predicted ability to resist self-objectification, ability to reject self-objectification led to body appreciation and body appreciation significantly predicted intuitive eating in all age groups. Some differences in the strengths of effects did emerge such that the body mass index body acceptance by others link was stronger for early and middle adult women, additionally, early adult women had a stronger link between resisting self-objectification and body body image is not only negatively associated with deleterious outcomes, but also positively associated with desired outcomes.

Further, body appreciation has been noted to be negatively correlated with dieting, and clinical assessments of eating pathology. Cotter and colleagues (2015) sought to investigate the factor structure and construct validity of the Body Appreciation Scale (BAS) with women of color by administering the BAS alongside the Multidimensional Body Self-Relations Questionnaire Appearance Evaluation Subscale (MBSRQ-AE), Rosenberg Self-Esteem Scale, Eating Attitudes Test-26 Dieting Subscale, and the Eating Disorders Self-Examination-Questionnaire (EDE-Q) to 228 Black undergraduate women. The MBSRQ-AE assess global evaluations of appearance (e.g., "I like my looks just the way they are"). The Eating Attitudes Test-26 Dieting Subscale measures dieting attitudes and dietary behaviors (e.g., "I engage in dieting behavior"). The EDE-Q assesses eating disordered behaviors and attitudes occurring within the previous 28 days and has four subscales. Restraint which assesses avoidance, Weight Concern which aims to assess fear of fatness, Shape Concern which measures specific body part concerns, and Eating Concern which assesses eating habits. Authors reported that the unidimensional factor structure of the BAS was supported in this sample. In terms of construct validity, the BAS was positively correlated with the MBSRQ-AE and the Rosenberg Self-Esteem Scale, and negatively correlated with the Eating Attitudes Test-26 Dieting Subscale, and all subscales of the EDE-Q. As such, greater body appreciation appears to be associated with less disordered eating pathology.

One concept that is related to body appreciation is self-compassion. Selfcompassion involves self-kindness, mindfulness (non-judgmental awareness), and common humanity (feeling that one is not alone, and one's experience is universal; Neff, 2003a; 2003b). Given such a definition, broadly being able to care for oneself and being grounded in mindfulness may be related to body appreciation. Max and colleagues (2017) aimed to test the mediator effect of body appreciation in the association between selfcompassion and disordered eating behaviors given the relatedness of the constructs. Results were generally positive among women from the general population (age range 18-50). Authors noted a negative association between body appreciation and disordered eating. Further, path analyses showed a negative and indirect effect between selfcompassion and disordered eating through body appreciation. In other words, individuals who exhibit self-compassion are somewhat protected against disordered eating through exhibiting body appreciation. Notably, this model explained 48% of the variance in disordered eating. Similar beneficial effects of body appreciation on eating psychopathology were noted by Pinto et al., (2017).

Pinto and colleagues (2017) were also interested in investigating factors that may promote or relate to body appreciation and how these impact eating psychopathology, but instead of self-compassion, investigated social safeness. Lack of social safeness, i.e., feelings of social acceptance and connectedness, is an important risk for maladaptive eating behavior. Indeed, interpersonal sensitivities and perceptions of unsafe social positions has been linked to eating disorder psychopathology (Pinto-Gouveia, Ferreira, &

Duarte, 2014). Authors hypothesized that positive and secure social relationships may be associated with respect and body appreciation and that this may in turn promote healthy eating behaviors and minimize harmful ones. Social safeness, body appreciation, and eating pathology were assessed among Portuguese women sampled from the general population. Indeed, first, correlational analysis were performed, and authors noted a positive correlation between social safeness and body appreciation, and a negatively correlation between body appreciation and eating pathology. In a path analysis, social safeness had a positive direct effect on body appreciation, and body appreciation had a direct negative effect on eating pathology. As such, analysis of indirect effects revealed social safeness presented an indirect effect on frequency and severity of pathological eating behaviors and attitudes mediated by body appreciation. Authors conclude that promoting body appreciation would help prevent attitudinal and behavioral components of disordered eating.

In sum, body appreciation seems to be beneficial for women's well-being by helping buffer against body dissatisfaction, thin ideal internalization, maladaptive perfectionism, and ED psychopathology. Additionally, body appreciation may increase desired outcomes such as intuitive eating. While factors such as social safeness and selfcompassion have been linked to body appreciation, the study of body image is relatively new, and the field knows little about what promotes body appreciation. One construct that has been supported thus far in the literature and deserves increased research attention is embodiment.

#### Embodiment

The Developmental Theory of Embodiment was formulated by Piran and Teall (2012) and focuses on examining both protective and risk factors to positive ways of inhabiting the body. Embodiment is experienced when being attuned to one's bodily needs and physical capacities is integrated with the experience of being fully engaged in the interpersonal and sociocultural worlds. Embodiment can also be conceptualized as a mind-body connection in which behaviors, beliefs, feelings, and expectations provide one with a strong sense of presence in the body and allows one to meet and express their needs. The Developmental Theory of Embodiment emphasizes that gender related social experiences shape embodiment and body image and group these experiences into three domains: Physical Freedom, Mental Freedom, and Social Power.

The Physical Freedom domain focuses on physical care of the body. Physical freedom is comprised of the notion that individuals derive pleasure from engaging in physical activities and the associated freedom from forced compliance with appearance standards, individuals are physically safe, individuals engage in autoregulated self-care, and that individuals have meaningful pleasurable connections to desires. Individuals that model the Physical Freedom domain engage in physical activities because they are enjoyable and enhance connection to the body, not to punish themselves or to counteract caloric consumption. The antithesis of Physical Freedom would be engaging in physical activities that are not enjoyable, or for the purpose of modifying the body to fit external beauty standards.

In regard to safety, the individual must be able to foster a positive connection with their body. Experiences that block this connection (e.g., sexual harassment) block embodiment. Encompassed within the Physical Freedom domain is attuned self-care. In order to engage in self-care individuals must be aware of internal cues, and then decide to act on these cues. Notably the last component of Physical Freedom is connection to desires (i.e., sexual and eating related desires). Piran asserts that it is important for women and girls to be attenuated to sexual and appetitive desire as this teaches them agency and ownership over their desires.

The Mental Freedom domain focuses on freedom from internalization of stereotypical social discourse. Piran notably emphasizes freedom from the social discourses of self-objectification, that women should be submissive, that women should control their desire, and the sexualization of all relationships with men. Factors that would encompass such freedom entail individuals having freedom of voice, assertive action, and engagement in activities unrelated to appearance, freedom from and a critical stance toward stereotypes of gendered appearance standards, and freedom from and a critical stance toward constraining stereotypes of gendered behavior.

Finally, Piran describes the Social Power domain. Social Power examines individual's social privilege and access to resources that relate to the diversity of individual identity (e.g., social class, race, sexual orientation etc.). Within this domain, Piran notes the importance of freedom from exposure to prejudice and discrimination

related to the individual's social location, an environment that provides experiences of justice and equity that are unrelated to the individual's social location, empowering relationships (e.g., presence of role models), and a positive connection to one's social location/identity. Given that embodiment is conceptualized around this mind-body connection that fosters physical, social, and mental agency, embodiment is also considered to be a state/trait where one experiences their body as an essential aspect of experiencing competency, interpersonal relatedness, power, self-expression, and wellbeing. Thus, practically, the core elements of embodiment translate to respect for and care of the body, the perception that one can take care of themselves, and to have agency and act on their own behalf (i.e., empowerment), a relative lack of externally oriented self-consciousness, knowing and voicing bodily experiences and needs, and the presence of a deep mind body connection. A person who exemplifies embodiment, then, accepts their body as a part of their being, and trusts its desires and needs. Embodiment also accounts for the fluidity of body image. Body image is not fixed, but rather fluctuates based on context and experiences (e.g., health, media exposure, developmental period, etc.). The physical freedom, mental freedom, and social power domains of embodiment theory allow for a refined look at contextual factors that may manipulate body image (Menzel, 2010).

## The Relationship Between Self-Objectification and Embodiment

As per self-objectification theory, self-objectification leads to a form of selfconsciousness that manifests as a preoccupation with the body's outward appearance (i.e. how the body appears to outsiders) and minimizes awareness of how the body feels (i.e. the health of the body and/or its functioning; Roberts & Waters, 2004). Feminist perspectives of objectification theory additionally note that in a sexualized and objectified patriarchal society women distance themselves from their own bodies through habitual self-monitoring (i.e., observing themselves from an outsider perspective) in order to achieve a more sociocultural acceptable idealized body which carries social benefits. This distancing from the body results in an alienation from knowing the body that holds negative consequences for women's own bodily self-knowledge and acceptance (Roberts & Waters, 2004). In other words, self-objectification precludes the possibility of embodiment (or vice versa, low embodiment facilitates self-objectification).

In support of this notion, Roberts and Pennebaker (1995) report gender differences in perceptions of internal states, with females being less attuned to internal physiological information (e.g., heart rate) and making less use of bodily cues when determining subjective mood compared to males. And as referenced above, selfobjectification is associated with deleterious outcomes such as disordered eating, negative body image, and affective disturbances. Given such, it would appear important to reconnect women with their bodies, and that being connected to the body would be associated with beneficial outcomes for women. Activities that focus on what the body does and how it feels may provide women with positive bodily experiences. Indeed, there are several lines of independent research to suggest that embodiment is associated with positive outcomes related to well-being in women.

For example, aspects of embodiment including body awareness and body responsiveness have been associated with positive affect, satisfaction with life, and selfacceptance (Impett, Daubenmier, & Hirschman, 2006). Important to the review at hand, embodiment has been noted to be negatively related to self-objectification in female yoga practitioners (Mahlo & Tiggemann, 2016). Along a similar vein, Daubenmeir (2005) concluded that body responsiveness, a construct adjacent to embodiment, may help prevent or lower levels of self-objectification. Three groups (yoga practitioners not currently taking aerobics classes, aerobic exercisers not currently taking yoga classes, and controls - women who had not taken aerobics or yoga classes in the past 2 years) were compared on measures of self-objectification, and body responsiveness. Daubenmeir (2005) hypothesized that yoga's emphasis on attunement to bodily sensations and internal awareness would cultivate body responsiveness and lower self-objectification. Indeed, results supported this hypothesis as Daubermeir (2005) noted the yoga group had lower levels of self-objectification and higher levels body responsiveness than controls. Additionally, there was a mediational effect such that body responsiveness mediated the relationship between exercise type and self-objectification – which suggested the importance of embodiment related constructs in women's well-being.

Further still, embodiment, or rather a lack thereof, has been associated with ED psychopathology. Stanghellini and colleagues (2012) point out that a core facet of ED psychopathology is overvaluing body shape and weight and hypothesized that this may emerge from those with ED experiencing their body as an object being looked at by

another. In order to examine this hypothesis authors developed a scale, Identity and EAting Disorders (IDEA) Questionnaire, that assessed the extent to which individuals viewed themselves through the eyes of others, defined themselves through the evaluation of others, felt oneself through objective measures, felt detached from their body, and felt themselves through starvation. In other words, the scale captured aspects of selfobjectification and the absence of embodiment. Authors administered the scale, alongside an assessment of ED pathology (the EDE-Q), to healthy controls and patients diagnosed with an eating disorder with the aim of understanding how self-objectification and absence of embodiment related to pathology.

Notably, patients with ED scored higher on all items, and the total scale score of the IDEA compared to controls. Total scale scores on IDEA were significantly associated with the EDE-Q total score and all EDE-Q subscales. Additionally, pointing to the importance of absence of embodiment in clinical pathology was the observation that the IDEA could successfully predict ED diagnosis. While this study was cross-sectional and therefore prevents cause and effect statements from being drawn, it can be concluded that a lack of embodiment and struggling with self-objectification is associated with elevated psychopathology that can significantly impact individuals' well-being.

The first scale to quantitively assess embodiment was developed by Menzzel and Levine (2007). The scale was designed to measure the embodied experiences of female collegiate athletes, and was negatively correlated with self-objectification, body

dissatisfaction, body shame, interoceptive deficits, and disordered eating symptomatology. However, the utility of the scale was limited due to its exclusive focus on female collegiate athletes. As such, a more general scale to assess embodiment was developed by Menzel (2010). The Physical Body Experiences questionnaire is a selfreport measure comprised of 17 items that measures embodiment more broadly (Menzel, 2010). In a series of validation studies, the Physical Body Experiences questionnaire was shown to correlate with several indices of psychological well-being among college students. The scale was positively correlated (r = .45) with body satisfaction and selfesteem (r = .42) thus suggesting greater levels embodiment are associated with increased body satisfaction and self-esteem.

The scale was also negatively associated with the body surveillance (i.e., degree to which one is concerned with and monitors how their body appears to others; r = -.23) and body shame (i.e. the level of shame one feels when they perceive themselves to fall short of sociocultural ideals; r = -.16). Relatedly, the scale was negatively associated with a measure of self-objectification (r = -.10) and ED symptomatology (r = -.21). These findings are particularly important given that the outcome measures are associated with markers of well-being. For instance, poor body satisfaction is associated with psychological distress such as affective disturbances (Johnson, & Wardle, 2005) and health compromising behaviors such as unhealthy weight control behaviors (e.g. selfinduced vomiting; Heywood & McCabe, 2006). Body shame also plays an important role in physical and psychological wellbeing. A longitudinal study conducted by Lamont (2015) noted that body shame is positively associated with number of infections (e.g. bacterial vaginosis, bladder infection, bronchitis, etc.), self-rated health, and physical illness symptoms (e.g. nausea). Body shame is also association with ED symptomatology, which is particularly noteworthy as high levels of symptomatology are a risk factor for the development of a full-blown clinical diagnosis (Stice, Ng, & Shaw, 2010). Eating disorders are not only difficult to treat but have the highest mortality rate of any mental illness (Smink, van Hoeken, & Hoek, 2013). Finally, the negative impact of self-objectification should not be understated (i.e., self-objectification is associated with restrictive eating, bulimic, and depressive symptoms; Muehlenkamp, & Saris–Baglama, 2002).

Finally, interventions that aim to get women to focus on what the body can *do* (i.e., its functionality) have been well-received. Expand Your Horizon is an intervention for women with negative body image that focuses on body functionality. The intervention was tested as a randomized controlled design with a pretest, posttest, one-week follow up, and active control group. The intervention consisted of three structured writing assignments. Participants are provided with an introduction to body functionality and are subsequently asked to write without stopping for fifteen minutes about the functions that their body performs and why they are personally important and meaningful to them. The control group learned about the importance of creativity and wrote fictional short stories.

Authors noted that at posttest and follow up participants in the functionality group were significantly more satisfied with their appearance than participants in the control group.

However, authors also noted a main effect of time in which participants in both groups felt more satisfied at follow up compared to posttest. Specifically, within body satisfaction participants in the functionality group were significantly more satisfied with their body's functionality than controls. In regard to self-objectification, participants in the functionality group experienced significantly lower levels of self-objectification than controls. Body appreciation was also higher among those in the functionality group, although this change failed to meet statistical significance (Alleva et al., 2015). Overall, these findings are promising and provide support for embodiment theory. Focusing on body functionality may help individuals positively reframe their body image as they focus on what the body can do, as opposed to what the body does not look like or what societal ideals the body fails to meet.

In other words, embodiment is associated with important indices of well-being, and understanding what fosters embodiment may provide a useful avenue for not only reducing the risk of deleterious outcomes but also promoting positive ones. Further speaking to the likelihood that embodiment promotes positive outcomes and minimizes negative ones is the ability of the Physical Body Experiences questionnaire to positively predict positive body image, and negatively predict self-objectification in regression analyses (Menzel, 2010). Given such outcomes related to embodiment it becomes important to understand what activities encompass embodiment. Piran and Menzel muse that activities that sharpen the individuals' focus to how the body feels, the functionality of the body, and promote a 'flow' state, would be embodying activities. As such, activities that foster a 'mind-body' connection, such as yoga, which are theorized to help individuals cultivate interoceptive awareness and learn to non-judgmentally evaluate the body's standing, have been a focus of the majority of embodiment research.

#### Specific Types of Embodying Activities.

Yoga is a mind-body exercise where participants link breathing with to physical postures, and meditation. During yoga, the focus is on cultivating a non-judgmental awareness of how the body feels and using this awareness of physical sensation to work within the body's comfort zone while still physically challenging the self (Impett, Daubenmier, & Hirschman, 2006). Research examining the impact of yoga on embodiment and associated outcomes has been positive. Impett and colleagues (2006) investigated changes in embodiment throughout the course of a two-month yoga immersion program, and additionally, explored if changes in embodiment due to yoga were associated with measures of well-being, and self-objectification. Participants completed a packet of self-report measures that assessed frequency of yoga practice, selfobjectification, well-being, and embodiment on the first weekend of the immersion, and every Saturday after such until the end of the two-month immersion. From pre- to post- authors noted a significant reduction in self-objectification. Hours spent practicing yoga per week was significantly associated with a .04 unit increase in the body awareness component of embodiment, suggesting that yoga increased individuals' ability to recognize and label their internal affective and somatic states. Finally, authors noted that this cultivated body awareness was associated with well-being; on weeks individuals reported increased body awareness (i.e. above their own mean) they also reported significantly higher levels of positive affect. Although a small sample size prevented mediational analyses, changes in self-objectification, well-being, and embodiment were all in the desired direction suggesting that yoga is an activity that may reduce women's psychological distance from their bodies, thus increasing wellbeing and decreasing self-objectification.

Indeed, Mahlo and Tiggemann (2016) provide increased empirical support for both the benefits of yoga, and the positive psychological impact of embodiment. As per above, authors speculated that yoga's emphasis on the mind-body connection would be embodying, and that this embodiment would increase individuals' ability to recognize and meet their internal needs, thus decreasing self-objectification. They further hypothesized that this decrease in self-objectification would have positive effects on body image. Authors recruited individuals who participated in yoga from six yoga studios in Southern Australia, and a comparison control group of undergraduates who did not do yoga from Flinders University. Three of the yoga studios focused on Iyengar Yoga (linking breath to postures) and three focused on Bikram Yoga ("hot yoga"; contains

objectifying aspects such as usage of mirrors, wearing of minimal clothes, openly promoted as weight loss tool). Recruiting from schools that emphasized different styles of yoga, facilitated the investigation of specific aspects of yoga that may be more or less beneficial to reducing self-objectification and increasing embodiment.

Authors noted that yoga participants had significant higher positive body image (as per scores on the Body Appreciation Scale), higher embodiment, and lower selfobjectification than undergraduate controls. In analyses performed to test if embodiment would be related to positive body image through reduced self-objectification, authors confirmed a model in which the relationship between yoga participation and positive body image was serially mediated by higher embodiment and lower self-objectification. In other words, activities such as yoga, that are embodying can cultivate positive body image through reducing self-objectification. Finally, authors noted no differences between those practicing Iyengar and Bikram Yoga, suggesting that despite some objectifying components, physical activity that increases ones' mind-body connection, and promotes feelings of empowerment, can have positive effects on body image.

Other forms of physical activity have also been noted to increase positive psychological outcomes in women, suggesting that in addition to an explicit focus on the mind-body connection as with yoga, activities that increase women perceived physical competency are embodying as well. For instance, Richman and Shaffer (2000) sought to examine if benefits of physical activity (e.g., self-esteem) that have been established in males generalizes to females, and to additionally identify peripheral factors (e.g. physical competency, gender identity, body image) that may influence the link between females' sports participation and self-esteem. Over 200 undergraduate women reported their level of sports participation in high school (e.g., what type of sport, how long they played for, perceived level of involvement), and additionally responded to self-report measures of body image (body esteem), physical competence, gender role identity, and self-esteem. Authors reported that sports participation was significantly associated with body image, physical competency, flexible gender identity, and self-esteem. These positive associations indicated that as sports participation increased so did body image, physical competency, and self-esteem. In regard to gender role identity, those with greater sports participation exhibited more flexible gender role attributes and endorsement of masculine attributes specifically was positively correlated with sports participation and self-esteem.

Notably, the peripheral factors that authors measured accounted for more than half of the variance in college female's self-esteem. A path model specified by the authors suggested that sports participation may not positively impact females' self-esteem unless physical competency, body image, and masculinity are promoted. Indeed, body image, physical competency, and masculinity mediated the relationship between sports participation and self-esteem. Authors hypothesized that gender role flexibility and physical competency may be particularly influential variables on females' self-esteem due to societal attitudes about women in sports. Indeed, sports participation is positively reinforced for men, but not women, and women often receive backlash and

discouragement from participation. As such, women may only receive benefits from sports to the extent that participation aligns them with more masculine normative ideals such as masculine gender identity attributes and physical competency. While this study did not directly assess embodiment, physical competency is a similar construct as it taps into percepts of the body's functionality.

### The Interaction of Self-Objectification, Embodiment, and Physical Activity

An important caveat to these findings, however, is the "(hetero)sexiness" of certain physical activities that women participate in (Burroughs & Nauright, 2000). Women's participation in physical activity has a long-standing history in patriarchal suppression, starting with the exclusion of women from physical activity to restrictions of women to sports that promoted a feminine physique to the entrance of women into contact sports. In attempts to curve women's participation in spots, aspects of athlete's womanhood such as sexual identity and femininity were often questioned and critiqued. Further, sports were not considered "real" work for women as their athletic achievements were/are interpreted in relation to motherhood and/or marital status (Burroughs & Nauright, 2000).

The entrance of women into contact and more "masculine" sports was paralleled by marketing in which women athletes were crafted to suite the male gaze, or the focus of such was on the female form rather than the competitional aspects of the activity. For many female athletes, the only way to achieve sponsorships is to utilize their sex appeal, or alternatively, many sponsorships require women to exude sex appeal (Burroughs &

Nauright, 2000). Additionally, the hegemonic masculine identity is one that focuses on muscularity and functionality of the body which stands in contrast to the hegemonic feminine identity, which is one that emphasizes appearance, and a thin, toned, but not too muscular appearance. Female athletes often struggle with body image, seeing their athletic body "too far" from the cultural ideal body. Further, female athletes' uniforms represent a unique source of stress. In focus groups, female athletes report feeling "exposed", and "sexualized" by having to wear uniforms that make them feel "completely naked." The uniforms contribute to their objectification by shifting the focus to appearance instead of achievement, and the women report often receiving comments from men about how the main purpose of attending female sporting events is to observe the athlete's body (Krane et al., 2004). Thus, due to societal objectification and minimalization of female athletics certain physical activities may be more objectifying than embodying (or vice versa) and thus may have differing effects on women's well-being.

For instance, we know that girls participate in sports at a lesser rate than their male peers, and females overall are less physically active (Slater & Tiggemann, 2011; Vilhjalmsson, & Kristjansdottir, 2003). Among girls, feelings of shame, embarrassment, and a perceived lack of physical competency relative to boys, promote dislike for physical education (Evans, 2006). Indeed, while sports provide an opportunity for embodied experience, they also provide an avenue for which individuals' (particularly females') bodies can be scrutinized and made a spectacle. Adolescent females report that

boys are their main barrier to participating in physical activity. Specifically, females report that the negative reactions (e.g., teasing) boys subject them to prevent them from wanting to participate in physical activity (Vu, et al., 2006).

Along a similar vein, Slater and Tiggemann (2011) investigated female's participation in physical activity relative to boy's, and reasons for participation rate discrepancies using self-objectification theory as a guiding framework. Authors hypothesized that girls' would be the subject of higher rates of teasing by opposite sex peers relative to boys, and that girls' participation in physical activity that focused on, or emphasized aesthetics (e.g. ballet) would be harmful to psychological well-being. Adolescents (12-16 years of age) completed self-report measures that assessed sports and physical activity participation, teasing from peers, coaches, and family, selfobjectification, appearance anxiety, and disordered eating. As hypothesized, boys participated in higher rates of organized sports than girls. Underlying this discrepancy may be the teasing reported by the girls. Girls reported higher rates of teasing by other sex peers than did boys. Specifically, girls reported being teased for their size/weight, how they look, and their level of coordination. This teasing was significantly correlated with self-objectification, body shame, and disordered eating. Further, authors noted that time spent on aesthetic related activities was related to bulimic symptomatology specifically. As such, it appears that teasing and participation in aesthetic activities are two elements within physical activity that have the ability to mediate the experience that girls have within sports. Women who experience teasing or participate in activities that

focus on aesthetics may be at risk for increased self-objectification and ED symptomatology.

As such, while physical activity may promote embodied experiences and reduced self-objectification because of the focus on what the body DOES and how the body feels, it is equally plausible that if the physical activity increases the individual's awareness of outsiders' perspectives about the body then self-objectification would increase and embodiment would decrease. Indeed, research generally supports that notion that physical activities which have objectifying characteristics (e.g., focus on appearance, weight, etc.) are associated with negative psychological outcomes. For example, Tiggemann and Slater (2001) examined self-objectification alongside its theorized consequences (e.g., disordered eating, body shame, self-surveillance) in dancers and non-dancers (undergraduate women). The dancers were women who had participated in classical ballet, with the rationale that although all women live in a society in which they are objectified, self-objectification is likely to be magnified in this population given that they perform on stage (to be looked at), spend long amounts of time in front of mirrors, and are in culture where there is increased pressure to be thin. The two groups were administered self-report measures of self-objectification, appearance anxiety, selfsurveillance, body shame, internal awareness, flow, and disordered eating.

Between group comparisons revealed that dancers had higher levels of selfobjectification and self-surveillance relative to the non-dancer control group. In regard to

the consequences of self-objectification, a significant difference was noted on disordered eating in which dancers had more symptomatology than non-dancers and this difference was attributed to self-surveillance. A path analysis supported the hypothesized relationship between self-objectification and its consequences in dancers. Selfobjectification significantly predicted self-surveillance, which had a direct path to body shame, disordered eating, appearance anxiety, and flow. Notably, self-surveillance impacted disordered eating directly, as well as indirectly through body shame. When all variables are taken into account, it appears that self-objectification has a particularly powerful effect on disordered eating, and that despite being removed from the selfobjectifying situation (ballet) individuals may continue to evaluate themselves in this manner signifying self-objectification as a perspective with enduring consequences.

Indeed, there appears to be a complex relationship between physical activity and psychological outcomes among females that is the result of sociocultural ideals and expectations. In order to better understand the relationship between physical activity and body image in females, Abbot and Barber (2010) examined aesthetic (how the body looks) and functional (what the body can do) aspects of body image in relation to females' physical activity participation. Unique to this study was that physical activity was examined at a broad level (sports participant, physical activity participant, or sedentary) but also by specific sport type. Individuals could be categorized as participating in an aesthetic sport, a non-aesthetic sport, or a hybrid.

Authors noted that overall, involvement in any sporting activity was associated with higher levels of functional body image than no participation. When specifically examining aesthetic versus non-aesthetic sports, girls who participated in non-aesthetic sports placed greater emphasis on their body's functionalities than did girls participating in aesthetic sports. Additionally, girls participating in non-aesthetic sports reported higher behavioral investment and satisfaction with body functionality than girls in aesthetic sports. Authors also speculated that increased focus on the functionality of the body may not replace the influence of sociocultural Western body ideals as sports and physical activity participation were associated with higher valuation of the body's attractiveness and higher investment with the body's appearance (especially so if the sport was aesthetic focused). This study suggests that women can hold dual attitudes about the body (i.e., be proud of its functionality but still emphasis appearance), but it is unclear if having higher investment in the body's functionality is at all protective from the shared appearance focus which is typically associated with poor psychological outcomes.

Indeed, while previous literature has seemed to indicate a strong negative association between self-objectification, sexualization, and psychological outcomes in the physical activity literature, recent studies (particularly within the dance literature) have introduced conflicting findings that complicate such relationships. Dance is a heavily studied physical activity because certain forms have been noted to be embodying (and hence positive) while other forms have been noted to be objectifying (and hence

negative), some forms having even been noted to simultaneously have embodying and objectifying elements.

For example, Tiggemann, Coutts, and Clark (2014) were interested in examining group level differences among belly dancers and college students on measures of positive body image, body dissatisfaction, self-objectification, and enjoyment of sexualization. Belly dancing represents an interesting activity as it can be conceptualized as both objectifying (given performance elements, costuming) but also embodying (i.e., requires focused attention on breathing and muscle movement). Further belly dance is accepting of all shapes and sizes, and curvier body shapes are often valued as more suitable for the style. College students and recreational belly dancers completed self-report measures of the aforementioned variables. Authors noted that belly dancers scored significantly higher than college students on positive body image, indicating that the belly dancers had a more positive body image than did the college students. Additionally, the belly dancers had significantly lower body dissatisfaction scores than the college students, indicating they the belly dancers endorsed less body dissatisfaction. Notably, in support of embodiment theory, the belly dancers scored significantly lower on the self-report measure of self-objectification compared to the college students, suggesting that the belly dancers were less likely to view themselves from an outsiders' perspective. To further test embodiment theory, authors performed a mediation analysis to see if the relationship between belly dancing and positive body image was mediated by self-objectification. Authors noted that that there was a significant indirect effect of group on positive body

image through self-objectification, and that the effect was moderate (accounted for 59% of variance). In other words, differing endorsements of self-objectification between the groups was associated with different levels of positive body image. Endorsement of enjoyment of sexualization were similar for both groups, and was positively correlated with self-objectification, and negatively correlated with positive body image. The lack of group differences in this regard were interpreted as supporting the notion that for belly dancers, sexiness is achieved through being "in" the dance. Authors additionally noted that enjoyment of sexualization may be a complex construct with objectifying and empowering elements, and that the purpose of the sexualizing activity may play an important role (i.e., is one engaging in sexualizing behaviors for an audience or for the self?).

Similar to belly dance, pole dance is an activity that has been traditionally thought of as sexualizing, objectifying, and harmful to women. More recent examinations of the activity, however, have reconceptualized it as also being embodying (Holland, 2010). As such, pole dancing appears to have both objectifying and embodying elements, which have been noted to impact psychological well-being in opposing ways. In a crosssectional investigation of pole dancers and controls (college students) Pellizzer, Tiggemann, and Clark (2016) noted results very similar to that of Tiggemann, Coutts, and Clark (2014). Pellizzer, Tiggemann, and Clark (2016) recruited 71 recreational pole dancers, and a comparison group of 91 undergraduate university students from southern Australia. Both groups completed measures of enjoyment of sexualization (Enjoyment of

Sexualization Scale; Liss et al., 2011), self-objectification (Surveillance Subscale of the Objectified Body Consciousness Scale; McKinley & Hyde, (1996)), embodiment (Physical Body Experiences Questionnaire; Menzel, 2010), and positive body image (Body Appreciation Scale; Avalos et al. 2005). Recreational pole dancers were additionally asked about frequency and length of their participation, and their motivations (e.g., fitness, to feel sexy, etc.).

The most common reason why individuals indicated participation in pole dancing was, "It's fun". In terms of group difference, recreational pole dancers and undergraduates scored similarly on enjoyment of sexualization. However, recreational pole dancers compared to undergraduates scored significantly lower on the self-report measure of self-objectification, and significantly higher on the self-report measures of embodiment, and positive body image. Examining the relationship between variables, authors noted that enjoyment of sexualization was positively correlated with self-objectification for recreational pole dancers but not for undergraduates. Self-objectification was negatively correlated with positive body image in both groups. Further, a significant positive correlation was also found in both groups between enjoyment of sexualization and embodiment, and additionally, embodiment was positively correlated with positive body image in both groups.

Despite enjoyment of sexualization being significantly correlated with selfobjectification in the sample of recreational pole dancers but not the undergraduates, the

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recreational pole dancers still had lower self-objectification, higher positive body image, and higher embodiment, suggesting perhaps, there are positive and negative elements within enjoyment of sexualization that minimize negative outcomes in the context of embodying activities. This is supported by the positive correlation between enjoyment of sexualization and embodiment. Subsequently, authors used the bootstrapping PROCESS protocol of Preacher and Hayes (2008) to estimate the direct and indirect relationship between enjoyment of sexualization and positive body image. For recreational pole dancers: there was a significant path (positive) from enjoyment of sexualization to selfobjectification, and a negative path from self-objectification to positive body image. Thus, enjoyment of sexualization is negatively related to positive body image through self-objectification. However, there were two other significant paths in the model. One was a direct significant positive path from enjoyment of sexualization to positive body image. The other was an indirect path to positive body image through embodiment. Enjoyment of sexualization was significantly and positively related to embodiment, and embodiment was significantly and positively related to positive body image.

The model looked different for undergraduates. There was a nonsignificant path from enjoyment of sexualization to self-objectification and a significant negative path from self-objectification to positive body image. The direct path from enjoyment of sexualization to positive body image was near zero. The path from enjoyment of sexualization to positive body image through embodiment was positive and significant. Again, these results suggest that in the presence of embodying activities, positive aspects of enjoyment of sexualization may be present, mitigating negative effects that would typically be present through self-objectification. In other words, embodiment may simultaneously bolster positive effects psychological outcomes and minimize negative ones. While this study provides evidence that pole dancing may a way in which positive body image can be promoted among women, there are several significant limitations: 1.) general physical activity was not assessed. 2.) sex worker status was not assessed 3.) style of pole dancing, if individuals competed was not assessed, and 4.) other psychological factors such as depression, anxiety, and eating disorder pathology were not examined.

## **CHAPTER 2**

#### THE CURRENT STUDY

The purpose of the current study was to replicate and extend the work of Pellizzer, Tiggemann, and Clark (2016). Conceptually, replications hold significant scientific value. The robustness of a finding is assessed through conducting replications (Zwaan et al., 2018). Through replications we can become increasingly confident that the original finding was not a Type I (or in certain cases, Type II) Error, and additionally, replications can serve as a means to investigate potential mediators/moderators of effect (e.g., culture; Schmidt, 2009). As such, the current study meaningfully contributed to the accumulation of scientific knowledge on the topic of enjoyment of sexualization, embodiment, Objectification Theory, and recreational pole dance. The extension aspect of this study was highlighted through the following additions to Pellizzer and colleagues' protocol (2016): controlled for general levels of physical activity, assessment of sex worker status, assessment of style of pole dancing, competition, and instructor status, and assessment of depression, anxiety, and ED pathology.

The rationale for including an assessment of general physical activity was as followed: Pellizzer, Tiggemann, and Clark (2016) did not exclude the possibility that recreational pole dancers simply engage in higher levels of physical activity compared to controls, and the higher level of physical activity drove observed associations. Indeed, Greenleaf (2005) noted that physical activity (defined as metabolic equivalents assed via the Aerobics Center Longitudinal Study Physical Activity Questionnaire) was negatively associated with self-objectification among both younger and older women. This suggests that greater levels of physical activity, irrespective of modality, may be associated with reduced self-objectification.

While sex workers were not explicitly targeted for recruitment into the current study, a question regarding sex worker status was included in the survey battery. The rationale for including this question was twofold. First, little work has been done assessing the psychological health of sex workers, however, the work that has been done has reported discerning outcomes (Rössler et al., 2010). Notably, the one-year prevalence rate of EDs among sex workers is 5.2%, and the lifetime prevalence rate of EDs among sex workers is 5.2%, and the lifetime prevalence for women sampled from the general population is around .8% for anorexia nervosa, 2.6% for bulimia nervosa, and

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3.0% for binge eating disorder (Keski-Rahkonen, & Mustelin, 2016; Stice, Marti, & Rohde, 2013). Second, sex workers may participate in recreational pole dancing classes in order to learn new skills/tricks, due to the stigmatized nature of their profession however, there may be different relationships among the measured variable in these women compared to women taking the pole dancing classes purely for recreational purposes. A small number of sex workers were recruited into the current study (n = 11; 19.0%). This n was too small to conduct properly powered mediational analyses, however, descriptive statistics pertaining to the predictor and outcome variables are reported, alongside their qualitative responses to the open-ended questions on the recreational pole dancing questionnaire.

To further understand the association between recreational pole dancing and psychological outcomes we increased the level of detail collected about participants' recreational pole dancing and included: style of pole dancing, competition status, and instructor status. According to the Pole Sport Organization there are five different categories of pole dance an individual can compete in: drama (Sometimes called Artistic Dance), entertainment (sometimes called Performance Theater), exotic, fitness (sometimes called Sport), and floorwork. Drama focuses on fluidity, emotional expression, and a cohesive storyline. Exotic focuses on low pole work, sensuality, shaking/isolating body movements, and heel work. Entertainment focuses on being upbeat, fun, and development of a creative theme/ "character". Sport places emphasis on tricks resembling athletic and gymnastic movement. Floorwork focuses on work off the

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pole. Individuals can also elect to participate in Doubles or Groups, or Solo performances. There are several levels of competition: Amateur (Novice, Intermediate, Advanced, Elite, and Semi-Pro), and Professional. As such, one could hypothesize that certain styles may be associated with more or less embodiment and/or objectification. Assessing style of dance assisted us in further understanding what (if any) aspects of pole dancing were beneficial to women. Additionally, Menzel and Levine (2011) originally conceptualized athletic competition as being embodying, so assessing competitor status provided additional insight into what constitutes "embodying" activities. Instructor status was assessed as instructors have likely had more years of experience, and thus, may find pole dancing more embodying due to their high level of skill.

Finally, we assessed depression, anxiety, and ED symptomatology as they are central tenants of Objectification Theory (Fredrickson, & Roberts, 1997). Fredrickson and Roberts (1997) posit that objectification may account for gender differences in depression, arguing that women (through self-objectification) restrict and censor their expression and initiatives thus leading to depressed affect. Fredrickson and Roberts (1997) also argue that two feminist perspectives on the development of ED fit into selfobjectification framework. One framework argues that ED develop in response to feelings of powerlessness, and ED represent a desire for control. Another perspective argues that ED prevent or stall the development of a girl's body into a women's body. Given that the world does not value femininity the way it does masculinity, girls may try to diminish and prevent their development. Fredrickson and Roberts (1997) argue then, that ED may emerge from women's lack of power to control their objectification.

Given that depressive and ED symptomatology are two main tenants of selfobjectification theory, it was important to test their association with the aforementioned variables in this sample. Specifically, given the hypothesized protective effect of embodiment, it was important from a public health perspective to assess women's endorsement of these factors. If recreational pole dance is associated with lower selfobjectification, ED and depressive symptomatology, a case could be made for future research that would establish causality, with the ultimate goal being the creation of public health interventions that focus on the promotion of women's participation in embodying activities such as pole dancing. Anxiety was assessed due to its high correlation and comorbidity with depression and ED symptomatology (Pollack, 2005; Swinbourne, & Touyz, 2007).

## Hypotheses

#### Hypothesis One

Hypothesis one stated that the regression and mediational findings of Pellizzer, Tiggemann, and Clark (2016) would replicate in this sample. We anticipated that enjoyment of sexualization would be positively associated with self-objectification and embodiment, and that embodiment would be positively associated with positive body image, and that self-objectification would be negatively associated with positive body image. We also hypothesized a direct positive path from enjoyment of sexualization to positive body image. See Figure 1 for the expected mediational paths.

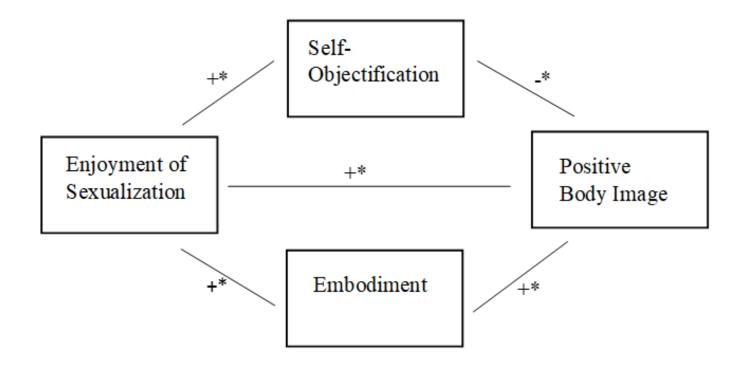


Figure 1. Expected Mediational Paths for Hypothesis 1

## Hypothesis Two

Hypothesis two stated that recreational pole dancers would endorse less ED and depressive symptomatology than previously established community and clinical norms.

#### Hypothesis Three

It was expected that enjoyment of sexualization would be positively associated with self-objectification and embodiment, and that embodiment would be negatively associated with ED pathology and depressive pathology, and that self-objectification would be positively associated with ED pathology and depressive pathology. We also hypothesized a direct positive path from enjoyment of sexualization to depressive pathology and ED pathology. See Figure 2 for expected mediational paths.

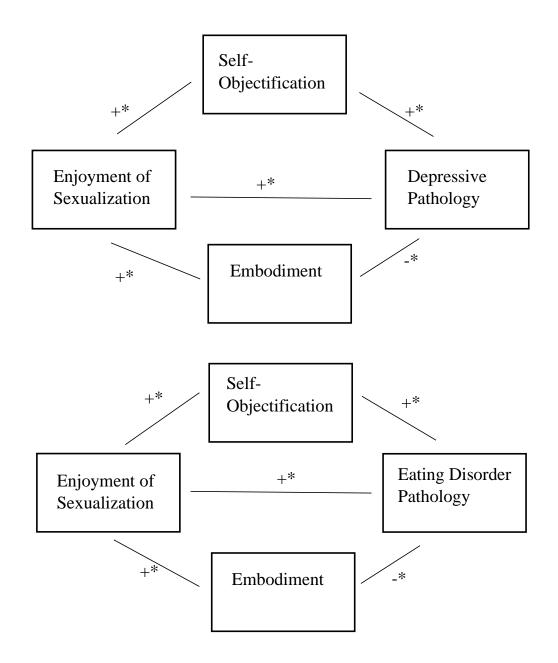


Figure 2. Expected Mediational Paths for Hypothesis 3

# Hypothesis Four

When controlling for physical activity, all relationships would hold.

#### Measures

All measures were administered online through Qualtrics Research Suite. To avoid fatigue effects, the order of questionnaires was randomized, aside from the demographic questionnaire which was always presented after the consent form.

## Demographic Questionnaire

Participants were administered a questionnaire online that assessed age, race/ethnicity, education level, marital status, sexual orientation, and body mass index. Body Mass Index (BMI) was calculated by utilizing the formula provided by the Center for Disease Control (dividing weight in pounds (lbs.) by height in inches (in) squared and multiplying by a conversion factor of 703).

## Pole Dancing Questionnaire

Participants were administered a scale consisting of 25 items that assessed various aspects of recreational pole dance practices. Specifically, participants were asked to report their length and frequency of participation, competition and instructor status, and reasons for participating in recreational pole dance. Five open ended questions were incorporated into the questionnaire in order to obtain qualitative information regarding participants perceptions of recreational pole dancing, and its relationship to empowerment. Participants were also asked to report participation in other forms of exercise (e.g., yoga). This questionnaire was designed for the purposes of this study but was based off of information provided by Pellizzer el al., (2016).

## Enjoyment of Sexualisation Scale (Liss et al., 2011)

The 8-item Enjoyment of Sexualization (EOS) scale assessed the extent to which women both enjoy sexualized male attention, and feelings of empowerment from feeling sexy (e.g., "I want men to look at me"). Items were rated on a 6-point Likert Scale ranging from 1 (disagree strongly) to 6 (agree strongly). A total score was derived by averaging item endorsement. Higher scores indicated greater enjoyment of sexualization. Liss et al., (2011) noted fair internal consistency reliability (Cronbach's  $\alpha$ =.85). Pellizzer et al., (2016) also noted internal consistency that was fair, and similar between recreational pole dancers ( $\alpha$ =.85) and university women ( $\alpha$ =.87). In the current study, items were rated on a 7-point Likert Scale because of the inclusion of a neutral item (neither agree nor disagree), and the reliability of the current scale was very good  $\alpha$ =.89.

#### Self-Objectification (McKinley & Hyde, 1996)

The Surveillance Subscale of the Objectified Body Consciousness Scale was used to measure the construct of self-objectification. This scale contains eight items regarding the extent to which women monitor their bodies and judge their bodies on how they look as opposed to how they feel. The items were rated on Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). An example item is "I often worry about whether the clothes I am wearing make me look good". Prior to averaging all items, items 1, 2, 3, 4, 7, and 8 were reverse scored. Higher scores indicated higher self-objectification. Authors reported internal consistency reliability at  $\alpha$  =.76–.89, and 2-week test-retest reliability at *r*=.79. Pellizzer et al., (2016) also reported acceptable

internal consistency for both recreational pole dancers ( $\alpha$ =.82) and university women ( $\alpha$ =.84). Reliability for the current study was good, Cronbach's alpha = .86.

#### Physical Body Experiences Questionnaire (Menzel, 2010)

This questionnaire is 18 items, measuring the extent to which women have a strong awareness of, and sense of connectedness with their body. Items were rated on a point scale, ranging from 1 (not at all true about me) to 7 (very true about me). Items were averaged to produce a total score. Notably, items 1 and 16 were reverse scored before averaging. Higher scores indicated greater levels of embodiment. The scale has good internal consistency reliability ( $\alpha = .94$ ; Menzel, 2010), and good internal consistency with recreational pole dancers ( $\alpha = .89$ ) and university women ( $\alpha = .93$ ; Pellizzer, Tiggemann, & Clark, 2016). An example item is "I have developed a connection between my body, my mind, and myself". Reliability for the current study was excellent, Cronbach's alpha = .96.

# Body Appreciation Scale – 2 (Avalos et al. 2005; Tylka & Wood-Barcalow, 2015)

Body appreciation was assessed using the Body Appreciation Scale-2 (BAS-2;

Tylka & Wood-Barcalow, 2015). The BAS-2 is a 10-item self-report scale using a 5point Likert score and demonstrates adequate internal consistency and retest reliability. Reliability for the current study was good, Cronbach's alpha = .94.

# *Eating Disorder Examination Questionnaire (EDE-Q; Fairburn & Beglin, 1994; 2008)* The EDE-Q is a self-report measure used to assess ED psychopathology. The

EDE-Q has 28 questions that ask participants to indicate frequency (No Days to Every

Day) of disordered attitudes, beliefs, and behaviors over the past 28 days. The EDE-Q provides four subscale scores which reflect different aspects of ED psychopathology: restraint, eating concern, shape concern, and weight concern. An example of an item from the restraint subscale is "On how many of the past 28 days have you been deliberately trying to limit the amount of food you eat to influence your shape or weight (whether or not you have succeeded)". An example item from the eating concern subscale is "On how many of the past 28 days have you had a definite fear of losing control overeating". An example item from the shape concern subscale is "On how many of the past 28 days have you had a definite desire to have a totally flat stomach". An example item from the weight concern subscale is "On how many of the past 28 days have you had a strong desire to lose weight". A global score was derived by averaging all the items on the EDE-Q. Previous research has indicated that the EDE-Q has acceptable internal consistency and test-retest reliability (Peterson et al., 2007; Luce & Crowther, 1999). The EDE-Q also has norms for both men and women in clinical and non-clinical populations (Aardoom et al., 2012; Lavender et al., 2010; Luce et al., 2008). Reliability for the EDE-Q Global was excellent, Cronbach's alpha = .96.

#### International Physical Activity Questionnaire (IPAQ; Booth, 2000)

The IPAQ is an international measure for physical activity. The self-report short form used in this study asked about vigorous, and moderate activity, and time spent walking and sitting over the past seven days (e.g., "during the past seven days, how much time did you spend sitting on a week day"). The IPAQ has been shown to have good reliability (Spearman reliability coefficient at and above .84), and good criterion validity when compared to objective measures of physical activity (e.g., accelerometer data; Craig, et al., 2003). Other studies report acceptable psychometric properties of the IPAQ (e.g.: Gauthier, Lariviere, & Young, 2009). The reliability for the current study was .73.

#### The Center for Epidemiological Studies -Depression (Radloff, 1977)

The Center for Epidemiological Studies-Depression (CES-D) is a 20-item measure that asks individuals to rate how often over the past week they experienced symptoms associated with depression (e.g., "I felt that I could not shake off the blues even with help from my family or friends"). Participants indicated if the symptom occurred "Rarely or none of the time (less than 1 day)" or up to "Most or all of the time (5-7 days)". Response options ranged from 0 to 3 for each item. Scores range from 0 to 60, with high scores indicating greater depressive symptoms. The CES-D also provides cutoff scores (16 or greater) that aid in identifying individuals at risk for clinical depression (Lewinsohn, Seeley, Roberts, & Allen, 1997). Lewinsohn et al., (1997) note high internal consistency. Reliability for the current study was good, Cronbach's alpha = .92

## The State Trait Anxiety Inventory (Spielberge, 1969)

The trait subscale of The State Trait Anxiety Inventory (STAI) was administered in the current study. The STAI is a 20-item state and 20-item trait anxiety self-report measure. Participants rated items on a four-point scale from 1 ("Almost Never") to 4 ("Almost Always). Higher scores indicated greater levels of anxiety. The scale is particularly useful in distinguishing anxiety from depressive symptomatology, and the scale has internal consistencies ranging from .86 to .95 (Abbassi, 1998; Spielberge, 1969; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983). Reliability was great in the current study (N = 66, Cronbach's alpha = .91).

All measures are provided in the appendix.

## Procedure

#### **Recruitment of Recreational Pole Dancers**

Participants were recruited from local Pole Fitness studios. This was done through posting flyers in studio lobbies and contacting studio directors via who either posted the flyer physically or posted a scanned copy of the flyer on their social media; the flyer participants saw is in Appendix A. Pole fitness studios were contacted *a priori*, and those that agreed to participate are listed in Appendix B. Participants were informed about a raffle entry for a bottle of Dry Hands gripping agent for their participation.

## Analytic Strategy

A power analysis was first conducted using G\*Power 3.1.9.2 (Faul et al., 2007) to determine the sample size needed for adequate power. A power analysis for a linear multiple regression was conducted, effect size (determined by specifying predictor correlations, using values obtained by Pellizzer et al., (2016)) was set to .32, power was set to .80, and 3 predictors (enjoyment of sexualization, embodiment, self-objectification) were specified. The total sample size reported was 39. In the case that BMI and Age correlate with the outcome variables, the power analysis was rerun with 5 predictors (enjoyment of sexualization, embodiment, self-objectification, age, BMI). The total sample size was 46. In order to account for potential missing data, we attempted to oversample and aimed to recruit 100 participants. We fell short of the desired n of 100 due to time constraints, missing data, and studio closures related to the COVID-19 pandemic.

We planned to analyze all data using SPSS Statistics Version 26. The data was first cleaned, and missing data was identified. Any questions that participants failed to answer were marked with a '-999'. If participants failed to answer >10% of a questionnaire their data was excluded in order to ensure the accurate calculation of scale scores. Data was then checked for normality (using P-P plots), skewness, and kurtosis. If analyses indicated significant skewness or kurtosis on any of the variables (absolute value of z-score > 1.96) appropriate transformations were conducted. The data was also checked for outliers using box-plots and was subsequently excluded or transformed. Frequency functions were run to examine the sample on demographic variables such as age and BMI. Pearson correlations were conducted for all variables.

### Testing Hypothesis One

To test the hypothesis that the mediational findings of Pellizzer et al., (2016) would replicate in this sample, regression analysis outlined by Pellizer et al., (2016) were conducted. See Figure one. The PROCESS protocol outlined by Preacher and Hayes (2008) was used – X was defined as Enjoyment Of Sexualization, Y was defined as Body Appreciation, and M<sub>1</sub> was defined as Embodiment, and M<sub>2</sub> was defined as Self-

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Objectification. Confidence intervals were set to 95% and 10,000 bootstraps were used. As per Pellizzer et al., (2016), the indirect effect was considered significant if the 95% bias-corrected confidence interval (CI) of the indirect path did not contain zero.

### Testing Hypothesis Two

Hypothesis two stated: recreational pole dancers would endorse less ED and depressive pathology than previously established norms. This was tested by comparing effect sizes (Cohen's d), Glass's delta, and hedges g through single sample *t*-tests.

### **Testing Hypothesis Three**

Hypothesis three described the hypothesized mediational paths from enjoyment of sexualization to both ED pathology and depressive pathology through embodiment and self-objectification respectively. See Figure two. This hypothesis was tested in a similar manner to hypothesis one. The PROCESS protocol outlined by Preacher and Hayes (2008) was used – X was defined as Enjoyment Of Sexualization, Y was defined as Eating Disorder Pathology (global EDE-Q score), and M<sub>1</sub> was defined as Embodiment, and M<sub>2</sub> was defined as Self-Objectification. Confidence intervals were set to 95%. 10,000 bootstraps were used. As Pellizzer et al., (2016) did, the indirect effect was considered significant if the 95% bias-corrected confidence interval (CI) of the indirect path did not contain zero. The model was re-run with depressive symptomatology (total CES-D score) as Y.

## **Testing Hypothesis Four**

Hypothesis four states that when controlling for physical activity, previous mediational relationships will hold. The analyses described for hypothesis one, and hypothesis three were re-run; physical activity (i.e., METs) was added as a covariate in the model.

## **Expected Results**

#### Hypothesis One

The indirect effect was considered significant if the 95% bias-corrected confidence interval (CI) of the indirect path did not contain zero. It was expected that enjoyment of sexualization would be positively associated with self-objectification and embodiment, and that embodiment would be positively associated with positive body image, and that self-objectification would be negatively associated with positive body image. We also expected a direct positive path from enjoyment of sexualization to positive body image. Significant paths were marked by p < .05.

## Hypothesis Two

We expected that recreational pole dancers would have significantly lower scores on the EDE-Q (H2a) and CES-D (H2b) than female clinical and community norms. This was determined by p < .05.

## Hypothesis Three

The indirect effect was considered significant if the 95% bias-corrected confidence interval (CI) of the indirect path did not contain zero. It was expected that enjoyment of sexualization would be positively associated with self-objectification and

embodiment, and that embodiment would be negatively associated with eating disorder pathology and depressive pathology, and that self-objectification would be positively associated with eating disorder pathology and depressive pathology. We also hypothesized a direct positive path from enjoyment of sexualization to depressive pathology and eating disorder pathology. Significant paths were marked by p < .05.

## Hypothesis Four

The indirect effect was considered significant if the 95% bias-corrected confidence interval (CI) of the indirect path did not contain zero. It was expected that enjoyment of sexualization would be positively associated with self-objectification and embodiment, and that embodiment would be negatively associated with eating disorder pathology and depressive pathology, and that self-objectification would be positively associated with eating disorder pathology and depressive pathology and depressive pathology. We also hypothesized a direct positive path from enjoyment of sexualization to depressive pathology and eating disorder pathology while controlling for physical activity (METs). Significant paths were be marked by p < .05.

## **CHAPTER III**

## RESULTS

## **Data Cleaning**

All data was analyzed using SPSS Statistics Version 26. The dataset was first checked for missing data. Questions that participants failed to answer were be marked with a '-999'. Participants with > 10% of a questionnaire missing were excluded. Descriptive statistics, including box plots and histograms were generated for all variables to assess normality. Age was significantly (p < .001) skewed, indicating too many low scores in the distribution. Shapiro-Wilk (p = .000) tests indicted the distribution was significantly different than a normal distribution. Given that this was a substantial positive skew, and the distribution was significantly different than a normal distribution (Mertler & Reinhard, 2017). The transformed using the Logarithmic transformation (Mertler & Reinhard, 2017). The transformation resulted in a non-significant skew (p > .05) and non-significant Shapiro-Wilk test, suggesting the distribution was not significantly different than a normal distribution (p = .099).

Analyses indicated significant skew (p<.001) and leptokurtosis (p<.05) for BMI. Shapiro-Wilk (p = .001) test indicted the distribution was significantly different than a normal distribution. Given that this was a substantial positive skew, data were transformed using the Logarithmic transformation (Mertler & Reinhard, 2017). The transformation resulted in a significant skew (p < .05) and non-significant Shapiro-Wilk test (p = .183). This suggests that there was a clustering of low scores, and the distribution was not significantly different than a normal distribution.

Analyses indicated that trait anxiety (STAI) was not significantly skewed (p > .05) and did not exhibit significant kurtosis (p > .05). Shapiro-Wilk (p = .077) indicated that the variable did not significantly deviate from a normal distribution.

Analyses indicated that depression (CES-D) was significantly skewed (p < .001) but did not exhibit significant kurtosis (p > .05). Shapiro-Wilk test indicated that the distribution significantly deviated from a normal distribution (p < .001). Box-plots revealed the presence of one extreme score (i.e., outlier; case 81). As per Tabachnick and Fidell (2007) the data were transformed to a.) reduce the impact of the outlier, and b.) make the distribution near normal. Also, per Tabachnick and Fidell (2007) a square root transformation was used because of the variables moderate positive skew. After the square root transformation, the distribution of the CES-D did not significant deviate from a normal distribution, Shapiro-Wilks p = .11.

Analyses indicated that positive body image (BAS-II) was slightly negatively skewed, and that the distribution was too flat, with too many cases in the tails. Shapiro-Wilks test indicated that the distribution significantly deviated from a normal distribution (p = .015). Per Tabachnick and Fidell (2007) recommendations for a negatively skewed non-normal distribution, a square root transformation was performed. After the transformation the BAS-II's distribution did not appear to significantly deviate from a normal distribution as per the Shapiro-Wilks test (p = .09).

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Shapiro-Wilk's test indicated that the distribution of embodiment (Physical Body Experiences questionnaire; PBE) significantly deviated from a normal distribution (p = .014). For a non-normally distributed variable that has a moderate negative skew Tabachnick and Fidell (2007) recommend using a square root transformation, however this did not result in a distribution which was not significantly different than normal – the distribution still significantly deviated from a normal distribution (Shapiro-Wilk's, p = .019).

Analyses indicated that the distribution of the EDE-Q Global significantly deviated from a normal distribution (Shapiro-Wilk's, p < .001). One extreme outlier was removed after visual examination of box-plots. A log10 transformation was then applied which slightly improved the distribution but was not statistically significant.

METs were derived from the IPAQ by using the formula provided by the IPAQ group. Walking, moderate activity, vigorous activity, and total activity METs were derived. The data had a substantial positive skew, and significantly deviated from a normal distribution (Shapiro-Wilk's, p < .001). Data was transformed using a Log10 transformation. Examination of the variable revealed that after the Log10 transformation the distribution of the variable was not significantly different than a normal distribution (Shapiro Wilk's p = .246).

Analyses indicated that the distribution of the Enjoyment of Sexualization scale (EOS) did not significantly differ from a normal distribution (Shapiro Wilk's p = .239)

and was not significantly skewed (p > .05) and did not exhibit significant kurtosis (p > .05).

Raw data is reported for all descriptive statistics. For correlations and regression analyses two sets of results are presented – analyses using the raw data, and analyses using the transformed variables. Using the raw data will assist with interpretation of the data, while using the transformed variables will assist with robustness of the analyses. Untransformed variables were also used for mediation analyses, bootstrapping was used to simulate normality (Hayes, 2013; Kane & Ashbaugh, 2017).

## **Participant Characteristics**

#### General

The final sample consisted of n = 82 recreational pole dancers. This was the result of a.) deleting any 'preview' data (n = 4 cases), and b.) cases where participants either only clicked on the consent form, or only completed the demographic questionnaire and none of the scales assessing the predictor and outcome variables (n = 7). One participant was excluded because they did not participate in recreational pole dance (n = 1). Additionally, participants who were missing total scores for the outcome variables (Enjoyment of Sexualization, Embodiment, Self-Objectification, Depression, Anxiety, Positive Body Image, and Eating Disorder Symptomatology) were removed (n = 11). The majority of the sample were women (96.3%, n = 79), and identified as heterosexual (63.4%, n = 52) and white (96.3%, n = 79). Demographic details can be found in Table 1. Only women were used in analyses testing hypotheses. Comparisons between the sample of the current study and the samples obtained by Pellizer et al., (2016) is provided in Table 2.

# Table 1

Demographic Information

	Ν	%
Gender		
Women	79	96.3
Men	2	2.4
Gender Non-binary	1	1.2
Ethnicity		
Caucasian/White	79	96.3
Other race <sup>†</sup>	2	2.4
American Indian/Alaskan Native	2	2.4
Asian	1	1.2
Sexual Orientation		
Heterosexual	52	63.4
Bisexual	21	25.6
Pansexual	5	6.1
Queer	3	3.7
Lesbian	1	1.2
Education		
Less than high school degree	1	1.2
High School degree or equivalent	2	4.2
Some college but no degree	10	12.2
Associate degree	6	7.3
Bachelor's Degree	39	47.6
Graduate Degree	24	29.3
Socioeconomic Status		
\$10,000-19,999	4	7.7
\$20,000-29,999	6	11.5
\$30,000-39,999	8	15.4
\$40,000-49,999	2	3.8
\$50,000-59,999	9	17.3
\$60,000-69,999	2	3.8

\$70,000-79,999	2	3.8
\$80,000-89,999	9	17.3
\$90,000-99,999	2	3.8
\$100,000-149,999	5	9.6
\$150,000+	3	5.8
Weight Status		
Yes – actively lose	8	9.8
Yes -actively gain	2	2.4
Yes – actively maintain	7	8.5
Yes – actively lose fat	7	8.5
Yes – actively gain muscle	12	14.6
Yes – actively gain muscle, lose fat	19	23.2
Not attempting to alter weight	24	29.3
Other <sup>‡</sup>	3	3.7

<sup> $\dagger$ </sup> other races wrote in included: multiracial (n = 1), and Persian (n = 1); <sup> $\ddagger$ </sup> Other: pregnant; was trying to lose weight and gain muscle but I have achieved this through pole; tone up

#### Anxiety

The STAI was used to assess participants' levels of trait anxiety, scale scores range from 20-80 with higher scores indicating greater levels of trait anxiety. Participants scores ranged from 39.00 to 75.00 (M = 58.76, SD = 9.63) on the STAI. Women in the current study were in the 96<sup>th</sup> percentile (Spielberger et. al., 1983). Further, women in our sample scored significantly higher than normative samples (working women, M = 34.79, SD = 9.22), t(1, 515) = 19.61, p < 0.0001, 95% CI [21.57. 26.37],  $g_{\text{Hedges}} = -2.59$ , CLES = 0.97. Normative data was obtained from Speilberger et al., (1983).

## Depression

The CES-D provides cut offs that can assist in identifying individuals at risk for clinical depression (greater than or equal to 16). Less than half of the sample was identified as at risk for clinical depression (33.3%, n = 24, M = 14.49, SD = 10.83).

*Comparisons of predictor and outcome variable scores among the current sample to community and Pellizer et al., (2016)* 

	Curren t Study M (SD)	Recreationa l Pole Dancers M (SD)	t	95% CI	gHedges	Universit y Students M (SD)	t	95 % CI	<b>g</b> Hedges
Self- Objectificatio n	n = 67 4.02 (1.09)	n = 71 † 4.55 (.94)	3.06* *	-0.87, -0.19	0.52	n = 91 † 5.03 (.98)	6.10* **	-1.34, - 0.68	0.98
Body Appreciation Scale II	3.89 (0.68)	3.61 (.66)	2.44*	0.053, 0.50	-0.42	3.10 (.74)	6.86* **	0.56, 1.02	-1.10
Physical Body Experiences Questionnaire ‡	5.76 (0.82)	5.30 (.78)	3.37* *	0.19, 0.74	-0.58	4.54 (.95)	8.35* **	0.93, 1.51	-1.36
Enjoyment of Sexualization•	5.01 (0.99)	3.70 (.96)	7.83* **	0.98, 1.64	-1.35	3.67 (.88)	8.90* **	1.04, 1.64	-1.45
Age <sup>§</sup>	30.85 (7.85)	22.97 (2.87)	7.98* **	5.93, 9.83	-1.31	19.03 (1.84)	13.93 ***	10.14, 13.50	-2.15
BMI•	24.20 (3.64)	22.77 (3.33)	2.68* *	0.40, 2.66	-0.41	23.34 (4.80)	1.45	-0.35, 2.27	-0.2

p = p < .05, p = p < .01, p = p < .001

<sup>†</sup>norms from Pellizer et al., 2016

 $\ddagger n = 64$ ; also note Pellizer et al., 2016 used an earlier version of the PBEQ

•n = 79

•n = 65

# Self-Objectification

The Surveillance Subscale of the Objectified Body Consciousness Scale was used

to measure self-objectification. Participants scores ranged from 1.38 to 6.25 (M = 4.02,

SD = 1.09). Participants' self-objectification scores were significantly lower than the

<sup>§</sup>n = 78

scores of recreational pole dancers reported by Pellizer et al. t(1, 136) = 3.06, p = 0.0026, 95% CIs [-0.87, -0.19]. g<sub>Hedges</sub> = 0.52, CLES = 0.64. Participants also scored significantly lower than the comparison sample of university students from Pellizer et al.'s study, t(1, 156) = 6.10, p < 0.0001, 95% CIs [-1.34, -0.68], g<sub>Hedges</sub> = 0.98, CLES = 0.76.

#### **Body Appreciation Scale II**

The Body Appreciation Scale II (BASII) was used to assess positive body image in the current study. Participants scores' ranged from 2.40 to 5.00 (M = 3.89, SD = 0.68). Participants' positive body image scores were significantly higher than the scores of recreational pole dancers reported by Pellizer et al. t(1, 136) = 2.44, p = 0.016, 95% CIs [0.053, 0.50], g<sub>Hedges</sub> = -0.42, CLES = 0.62. Participants' scores were significantly higher than the comparison sample of university students from Pellizer et al.'s study, t(1, 156) =6.86, p < 0.0001, 95% CIs [0.56, 1.02], g<sub>Hedges</sub> = -1.10, CLES = 0.78.

#### Physical Body Experiences Questionnaire (PBE)

The Physical Body Experiences Questionnaire was used to assess embodiment in the current study. Participants' scores ranged from 3.81 to 7.00 (M = 5.76, SD = 0.82). Participants' embodiment scores were significantly higher than the scores of recreational pole dancers reported by Pellizer et al., t(1, 133) = 3.37, p = 0.001, 95% CIs [0.19, 0.74],  $g_{\text{Hedges}} = -0.58$ , CLES = 0.66. Participants' scores were significantly higher than the

comparison sample of university students from Pellizer et al.,'s study, t(1, 153) = 8.35, p < 0.0001, 95% CIs [0.93, 1.51],  $g_{\text{Hedges}} = -1.36$ , CLES = 0.83.<sup>1</sup>

#### Enjoyment of Sexualization (EOS)

The EOS was used to assess participants' enjoyment of sexualization; scores ranged from 2.25 to 7.00 (M = 5.01, SD = 0.99). Participants' enjoyment of sexualization scores were significantly higher than the scores of the recreational pole dancers reported by Pellizer et al., t(1, 134) = 7.83, p < .0.0001, 95% CIs [0.98, 1.64],  $g_{Hedges} = -1.35$ , CLES = .0.83. Participants' scores were significantly higher than the comparison sample of university students from Pellizer et al., 's study, t(1, 153) = 8.90, p < 0.0001, 95% CIs [1.04, 1.64],  $g_{Hedges} = -1.45$ , CLES = 0.85.

# **IPAQ**

The IPAQ was used to assess participants' total level of physical activity (via

METs) in the current study. Participants scores ranged from 99.00 to 65172.00 (M =

5307.02, SD = 9672.59).

#### Eating Disorder Symptomatology

*Restriction.* Participants scores on the restraint subscale of the EDE-Q ranged from 1.00 to 6.40 (M = 2.38, SD = 1.51).

*Eating Concern.* Participants' scores on the eating concern subscale of the EDE-Q ranged from 1.00 to 5.60 (M = 1.63, SD = 1.18).

*Weight Concern.* Participants' scores on the weight concern subscale of the EDE-Q ranged from 1.00 to 7.00 (M = 2.39, SD = 1.45).

<sup>&</sup>lt;sup>1</sup> However, it should be noted that Pellizer et al., (2016) did use an earlier version of the PBE.

Shape Concern. Participants' scores on the shape concern subscale of the EDE-Q ranged from 1.00 to 7.00 (M = 2.52, SD = 1.56).

*Global.* Participants' scores on Global EDE-Q ranged from 1.00 to 6.40 (M = 2.23, SD = 1.30).

#### Pole

Participants indicated that they had been participating in pole for an average of 38.75 months (SD = 29.91) or just over three years. Approximately 21.2% of participants had been practicing for less than one year, 35.4% between one and three years, and 44.2% greater than three years. Relatedly, participants reported taking an average of 2.60 classes a week (SD = 1.85), which lasted approximately one hour (M = 63.97, SD = 18.08). Practicing outside of classes was relatively uncommon; participants reported practicing on their own approximately one day per week (M = 1.45, SD = 1.74) for approximately one hour (M = 62.33, SD = 44.42). The most common reason for participating in pole was 'it is fun' (n = 57; 65.9%). A breakdown of reasons for participants ranked 'It is fun' as the most important reason for participating in pole dance (n = 32, 56.1%). The second most commonly ranked reason was 'I find it empowering' (n = 8, 9.8%).

	Ν	%
Reasons for recreational pole dance		
participation		
It is fun	57	65.9
For exercise/physical activity	47	57.3
Enjoy the community/company	46	56.1
Different than other forms of	44	53.7
exercise		
Build muscle	44	53.7
To stay "in shape"	42	51.2
Empower	42	51.2
Enjoy dressing up	16	19.5
Lose fat	15	18.3
To look sexy	14	17.1
Other	11	13.4
I enjoy performing for men	4	4.9
To learn moves for work	3	3.7

Reasons for Participating in Recreational Pole Dance

The majority of participants were not recreational pole dance instructors (n = 42, 51.2%), but a small portion were (n = 16, 19.5%) and had indicated approximately three years of teaching experience (M = 36.44, SD = 30.82). About half of the sample indicated they compete in recreational pole dancing competitions (n = 29, 35.4%), and that the most common level participants compete at the intermediate level (n = 11, 37.9%). Of participants competing, the most frequent category in which participants competed in was Sport (n = 12, 14.6%). Participants indicated their perceived skill level as advanced (n = 14, 48.3%), intermediate (n = 7, 24.1%), novice (n = 4, 13.8%), elite (n = 3, 10.3%) and semi-pro (n = 1, 3.4%).

Participants also indicated participating in a diverse range of physical activities

outside of pole. Table 4 shows the breakdown of physical activity participation.

Participants reported doing these other activities for an average of 10.26 hours a week

(*SD* = 34.19).

#### Table 4

Physical Act	ivity Particin	pation Outsi	de of Pole
--------------	----------------	--------------	------------

	Ν	%
Physical activity participation outside of		
pole		
Yoga	17	20.7
Weight Training	16	19.5
Walking	14	17.1
Hiking	11	13.4
Running	10	12.2
Biking/Cycling	6	7.3
Other Dance	6	7.3
Other	6	7.3
Swimming	5	6.1
Cross-fit	3	3.7
Sports	2	2.4
Gymnastics	2	2.4
Boxing/MMA	1	1.2

## **Relationship Between Variables**

As per Pellizzer et al., (2016) Pearson correlations were conducted to look at the relationships between predictor, and outcome variables. Pearson correlations were first conducted examining: age, positive body image, embodiment, self-objectification, and enjoyment of sexualization. Table 5 displays correlations using the transformed variables

(in cases where the original variables had a non-normal distribution). Table 6 displays correlations using the untransformed variables for ease of interpretation.

Generally speaking, the correlations between variables did not change when using transformed compared to untransformed variables with the exception of the relationship between enjoyment of sexualization and positive body image. Using the transformed variables there was a significant relationship between positive body image and enjoyment of sexualization (r = -.264, p = .038) whereas using the untransformed variables, this relationship was not significant (r = .212, p = .056).

# Table 5

Measure	1. Age	2.	3.	4. Self-	5.
	-	Positive	Embodiment	objectification	Enjoyment
		Body			of
		Image			sexualization
1. Age		348**	177	.056	.002
2. Positive	348**		.744**	.502**	264*
Body Image					
3. Embodiment	177	.744**		.462**	028
4. Self-	.056	.502**	.462**		.187
Objectification					
5. Enjoyment	.022	264*	028	.187	
of					
Sexualization					
*p < .05, **p < .01	-				

Pearson Correlations for Transformed Predictor and Outcome Variables

Pearson Correlations for Untransformed Predictor and Outcome Variables

Measure	1. Age	2.	3.	4. Self-	5.
		Positive	Embodiment	objectification	Enjoyment
		Body			of
		Image			sexualization
1. Age		.309**	.167	.080	.022
2. Positive	.309**		.680**	464**	.212
Body Image					
3. Embodiment	.167	.680**		411**	.024
4. Self-	.080	464**	411**		.154
Objectification					
5. Enjoyment	.022	.212	.024	.154	
of					
Sexualization					
** <i>p</i> < .01					

A second set of correlations were calculated looking at the relationship between the original variables included by Pellizzer et al., (2016) and several outcome variables included for the purposes of the current study. Pearson correlations were calculated examining: age, BMI, positive body image, embodiment, self-objectification, enjoyment of sexualization eating disorder pathology, depressive symptomatology, anxious symptomatology, METs. Table 7 displays correlations using the transformed variables (in cases where the original variables had a non-normal distribution). Table 8 displays correlations using the untransformed variables for ease of interpretation.

Complete Pearson Correlations for Transformed Predictor and Outcome Variables

Measure	1	2	3	4	5	6	7	8	9	10
1. Age		0.1	-	-	0.05	0.00	0.08	_	0.344*	-0.151
		54	0.34 8**	0.17 7	6	2	6	0.312* *	*	
2. BMI	0.15		0.14	0.10	0.21	-	0.39	-0.025	-0.053	-0.155
	4		1	0	4	0.25 2*	9**			
3. Positive	-	0.1		0.74	0.50	-	0.57	0.504*	-	0.074
Body Image	0.34 8**	41		4**	2**	0.26 4*	1**	*	0.756* *	
4.	-	0.1	0.74		0.46	-	0.37	0.479*	-	-
Embodimen	0.17	00	4**		2**	0.02	6**	*	0.600*	0.431*
t	7					8			*	*
5. Self-	0.05	0.2	0.50	0.46		0.18	0.68	0.239	-	-0.200
Objectificati	6	14	2**	2**		7	9**		0.363*	
on									*	
6.	0.00	-	-	-	0.18		-	-0.114	0.146	-0.283
Enjoyment	2	0.2	0.26	0.02	7		0.04			
of ã		52	4*	8			3			
Sexualizatio		*								
n 7. F. i	0.00	0.0	^ <b></b>	0.07	0.50			0.005		0.007
7. Eating	0.08	0.3	0.57	0.37	0.68	-		0.227	-	-0.097
Disorder	6	99 **	1**	6**	9**	0.04			0.526* *	
Pathology			0.70	0.47	0.00	3	0.00		<b>т</b>	0.1.40
8.Depressiv	-	-	0.50	0.47 9**	0.23	-	0.22		-	0.149
e	0.31	0.0	4**	9**	9	0.11	7		0.753* *	
Symptomat	2**	25				4			*	
ology	0.24					0.1.4				0.055
9. Anxious	0.34	-	-	-	-	0.14	-	-		-0.055
Symptomat	4**	0.0	0.75 6**	0.60	0.36	6	0.52 6**	0.753* *		
ology		53		0**	3**		•		0.055	
10. METs	- 0.15	-	0.07	-	-	-	-	0.149	-0.055	
	0.15 1	0.1 55	4	0.43 1**	0.20 0	0.28 3	0.09 7			
$\frac{1}{2} n < 05 $		55		1.,	U	3	/			

\**p* < .05, \*\**p* < .01

Complete Pearson Correlations for Untransformed Predictor and Outcome Variables

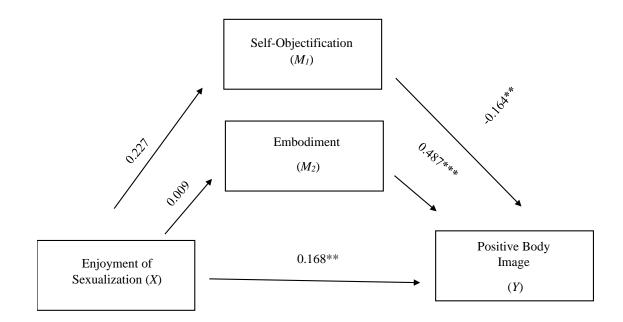
Measure	1	2	3	4	5	6	7	8	9	10
1. Age		.124	.377**	.200	.049	.097	002	- .322**	.392**	- .111
2. BMI	.124		125	101	.215	- .170	.300*	007	.032	103
3. Positive Body Image	.377**	125		.745**	- .510**	.216	- .628**	- .478**	.750**	- .068
4. Embodiment	.200	101	.745**		- .463**	.005	- .422**	- .461**	.596**	.249
5. Self- Objectification	.049	.215	- .510**	- .463**		.241	.715**	.180	- .359**	- .053
6. Enjoyment of Sexualization	.097	170	.216	.005	.243		014	161	.083	- .173
7. Eating Disorder Pathology	002	.300*	- .628**	- .422**	.715**	- .014		.202	- .508**	- .059
8. Depressive Symptomatology	- .322**	007	- .478**	- .461**	.180	- .161	.202		- .716**	.267
9. Anxious Symptomatology	.392**	032	.750**	.596**	- .359**	.082	- .508**	- .716**		- .111
10. METs	111	103	068	.249	053	- .173	059	.267	111	
*p < .05, **p	< .01									

## **Testing Hypotheses 1-4**

Given the amount of missing data on the outcome variables (approximately 10%), mean replacement was used in order to have a large enough n to sufficiently power analyses.

## Hypothesis One

Results from a parallel mediation analysis indicated that enjoyment of sexualization was not indirectly associated with positive body image through its relationship with self-objectification and/or embodiment. See Figure 3 for path coefficients. A 95% bias-corrected confidence interval based on 5,000 bootstrap samples indicated that the indirect effect through self-objectification was not different than zero [-0.11, .002]. A 95% bias-corrected confidence interval based on 5,000 bootstrap samples indicated that the indirect effect through embodiment was not different than zero [-0.11, .002]. A 95% bias-corrected confidence interval based on 5,000 bootstrap samples indicated that the indirect effect through embodiment was not different than zero [-0.08, 0.10]. The direct effect of enjoyment of sexualization on body image was significant however (p = .0028), 95% CI (0.06, 0.28).



**Figure 3.** Direct and Indirect Effects of Enjoyment of Sexualization on Positive Body Image

## Hypothesis Two

It was hypothesized that recreational pole dancers would have significantly lower scores on the EDE-Q (H2a) and CES-D (H2b) than female clinical and community norms. Independent sample *t*-tests were conducted comparing the sample used in the current study to a sample of women from the community who were administered the EDE-Q (Mond et al., 2006) and women diagnosed with EDs (Smith et al., 2017).

H2a. *Community Norm Comparison*. Women in the current study reported significantly higher scores than community samples on the restraint, eating concern, and weight concern subscales of the EDE-Q, as well as the Global EDE-Q, p < .001. There was no significant differences between groups on the shape concern subscale, p = .17. See Table 9 for details. *Clinical Norm Comparison*. Women in the current study reported significantly lower scores than clinical samples on all of the EDE-Q subscales, and the Global EDE-Q, p < .001. See Table 9 for details.

**H2b.** The current study sample scored significantly higher on the CES-D compared to community norms, p < .001. The current study sample scored significantly lower on the CES-D compared to clinical norms obtained from Garrison et al. (1991), p < .001. See Table 9.

# Table 9

Comparisons Global EDE-Q and EDE-Q subscales scores among the current sample to community and ED Samples

	Current	Commu	t	95%	gHedges	ED	t	95 % CI	<b>g</b> Hedges
	Study	nity		CI		$M\left(SD\right)$			
	M(SD)	M(SD)							
	n = 63	n =				n = 1425			
		5231†				* *			
Restrain	2.38	1.30	6.08***	0.73,	-0.77	3.61	5.28***	-1.69, -0.77	0.68
t	(1.51)	(1.40)		1.43		(1.82)			
Eating	1.63	0.76	6.45***	0.61,	-0.82	3.48	9.95***	-2.22, -1.48	1.27
Concer	(1.18)	(1.06)		1.13		(1.47)		,	
n		~ /							
Weight	2.39	1.79	3.14**	0.22,	-0.40	4.20	8.71***	-2.22,	1.12
Concer	(1.45)	(1.51)		0.98		(1.62)		-1.40	
n								-1.40	
Shape	2.52	2.23	1.39	-0.12,	-0.18	4.68	11.10**	-2.54, -1.78	1.43
Concer	(1.56)	(1.65)		0.70		(1.51)	*		
n	(1.50)								
Global	2.23	1.52	4.48***	0.40,	-0.57	4.00	9.58***	-2.13, -1.41	1.23
EDE-Q	(1.30)	(1.25)		1.02		(1.44)			
	Current	Commun	t	95%	gHedges	Clinical	t	95% CI	g <sub>Hedges</sub>
	Study	ity		CI	-	M(SD)			-
	M(SD)	M(SD)				111 (SE)			
	n = 72	n = 769§				N = 56•			
CES-D	14.49	10.24	3.53***	1.88,	-0.44	31.77	9.00***	-21.01, -	1.60
		(9.67)	0.00	6.62	0.11	(10.68)	2.00	13.48	1.00
	(10.84)	(2.07)		0.02		(10.00)		20010	

\* = p < .05, \*\* = p < .01, \*\*\* = p < .001

<sup>†</sup>norms from Mond, Hay, Rogers, & Owen, (2006)

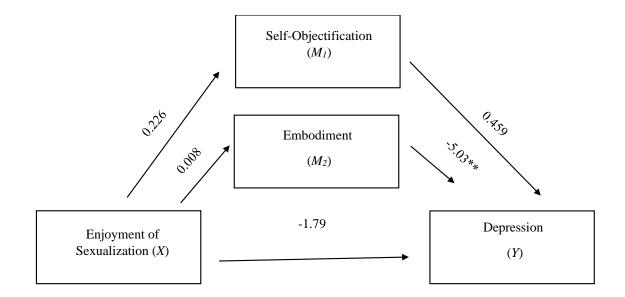
‡norms from Smith et al., (2017)

<sup>§</sup>norms from Crawford et al., (2011)

•norms from Garrison et al., (1991)

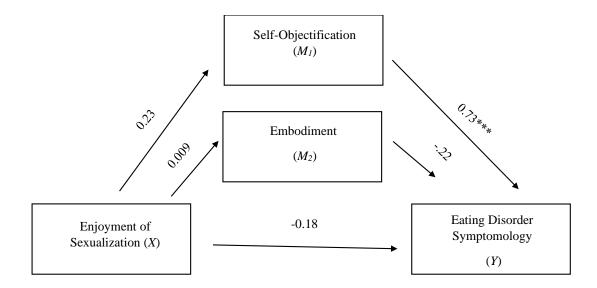
# Hypothesis 3

**Depressive Symptomatology.** Results from a parallel mediation analysis indicated that enjoyment of sexualization was not indirectly related to depressive symptomatology through its relationship with self-objectification and/or embodiment. See Figure 4 for path coefficients. A 95% bias-corrected confidence interval based on 10,000 bootstrap samples indicated that the indirect effect through self-objectification was not different than zero [-0.62, 1.08]. A 95% bias-corrected confidence interval based on 10,000 bootstrap samples indicated that the indirect effect through self-objectification was not different than zero [-0.62, 1.08]. A 95% bias-corrected confidence interval based on 10,000 bootstrap samples indicated that the indirect effect through embodiment was not different than zero [-0.97, 1.03]. The direct effect of enjoyment of sexualization on depressive symptomatology was not significant (p = .155) 95% CI (-4.28, 0.70)



**Figure 4.** Direct and Indirect Effects of Enjoyment of Sexualization on Depressive Symptomatology

**Eating Disorder Symptomatology.** Results from a parallel mediation analysis indicated that enjoyment of sexualization was not indirectly related to eating disorder symptomatology through its relationship with self-objectification and/or embodiment. See Figure 5 for path coefficients. A 95% bias-corrected confidence interval based on 10,000 bootstrap samples indicated that the indirect effect through self-objectification was not different than zero [-0.00, 0.41]. A 95% bias-corrected confidence interval based on 10,000 bootstrap samples indicated that the indirect effect through embodiment was not different than zero [-0.07, 0.04]. The direct effect of enjoyment of sexualization on eating disorder symptomatology was not significant (p = .103) 95% CI [-0.40, 0.04].



**Figure 5.** Direct and Indirect Effects of Enjoyment of Sexualization on Eating Disorder Symptomatology

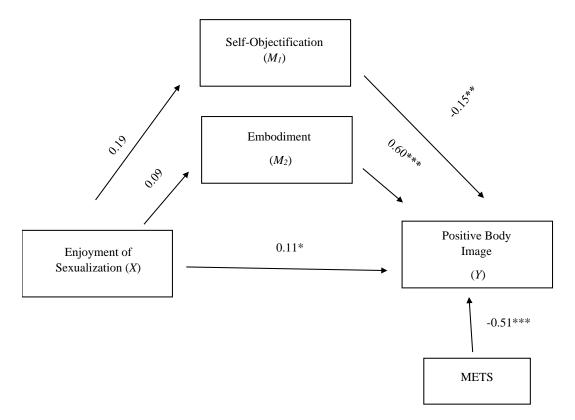
## Hypothesis 4<sup>2</sup>

**Positive Body Image.** Results from a parallel mediation analysis indicated that enjoyment of sexualization is not indirectly related to positive body image through its relationship with self-objectification and/or embodiment. See Figure 6 for path coefficients. A 95% bias-corrected confidence interval based on 10,000 bootstrap samples indicated that the indirect effect through self-objectification was not different than zero (-0.10, .00). A 95% bias-corrected confidence interval based on 10,000 bootstrap samples indicated that the indirect effect through embodiment was not different than zero (-0.04, .17). The direct effect of enjoyment of sexualization on positive body image was significant (p = .039) 95% CI (0.01, 0.21).

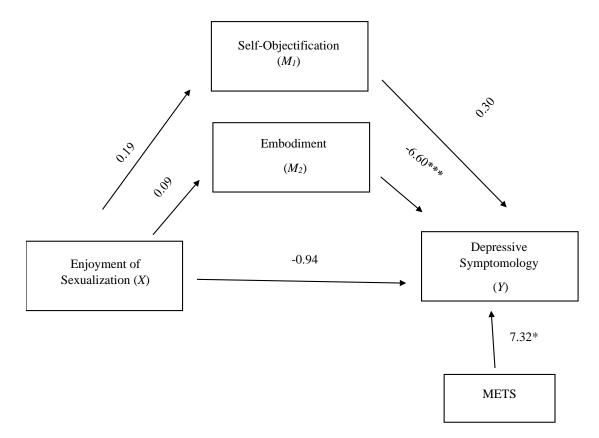
**Depression.** Results from a parallel mediation analysis indicated that enjoyment of sexualization is not indirectly related to depressive symptomatology through its relationship with self-objectification and/or embodiment. See Figure 7 for path coefficients. A 95% bias-corrected confidence interval based on 10,000 bootstrap samples indicated that the indirect effect through self-objectification was not different than zero [-0.52, 0.85]. A 95% bias-corrected confidence interval based on 10,000 bootstrap samples indicated that the indirect effect through embodiment was not different than zero [-1.88, 0.54]. The direct effect of enjoyment of sexualization on depressive symptomatology was not significant (p = .461) 95% CI [-3.45, 1.58].

<sup>&</sup>lt;sup>2</sup> Log transformed METs were used to increase interpretability of results

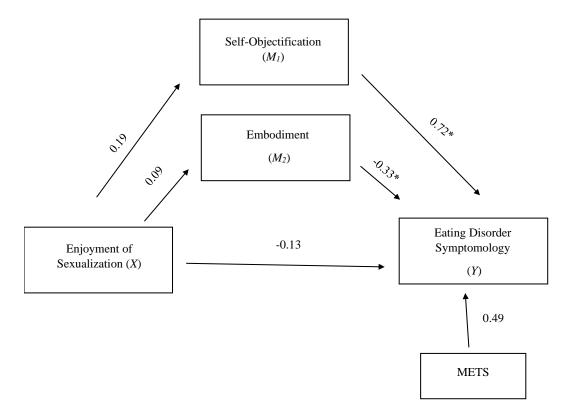
Eating Disorder Symptomatology. Results from a parallel mediation analysis indicated that enjoyment of sexualization is not indirectly related to eating disorder symptomatology through its relationship with self-objectification and/or embodiment. See Figure 8 for path coefficients. A 95% bias-corrected confidence interval based on 10,000 bootstrap samples indicated that the indirect effect through self-objectification was not different than zero [-0.02, 0.38]. A 95% bias-corrected confidence interval based on 10,000 bootstrap samples indicated that the indirect effect through embodiment was not different than zero [-0.14, 0.02]. The direct effect of enjoyment of sexualization on eating disorder symptomatology was not significant (p = .274) 95% CI [-0.35, 0.10].



**Figure 6.** Direct and Indirect Effects of Enjoyment of Sexualization on Positive Body Image with METs as a covariate



**Figure 7.** Direct and Indirect Effects of Enjoyment of Sexualization on Depressive Symptomatology with METs as a covariate



**Figure 8.** Direct and Indirect Effects of Enjoyment of Sexualization on Eating Disorder Symptomatology with METs as a covariate

## **Exploratory Analyses**

As per the analytic plan, models would be run with covariates if any demographic characteristics were significantly correlated with the outcome variables of interest. Given that no specific hypotheses were made about the inclusion of covariates however, and because no covariates were included in the analyses by Pellizer et al., (2016) these analyses can be considered exploratory. Age and anxiety were significantly correlated with positive body image and depressive symptomatology.

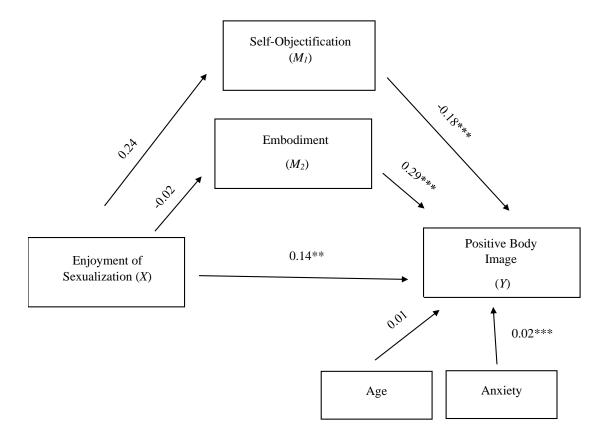
As such, the mediational analyses involving positive body image symptomatology were rerun with age and anxiety as covariates. Results from a parallel mediation analysis indicated that enjoyment of sexualization was not indirectly related to positive body image through its relationship with self-objectification and/or embodiment. See Figure 9 for path coefficients. A 95% bias-corrected confidence interval based on 10,000 bootstrap samples indicated that the indirect effect through self-objectification was not different than zero [-0.11, 0.00] A 95% bias-corrected confidence interval based on 10,000 bootstrap samples indicated that the indirect effect through self-objectification was not different than zero [-0.05, 0.04]. The direct effect of enjoyment of sexualization on positive body image was significant (p = .005) 95% CI [0.04, 0.23].

Results from a parallel mediation analysis indicated that enjoyment of sexualization is not indirectly related to depression through its relationship with selfobjectification and/or embodiment. See Figure 10 for path coefficients. A 95% biascorrected confidence interval based on 10,000 bootstrap samples indicated that the

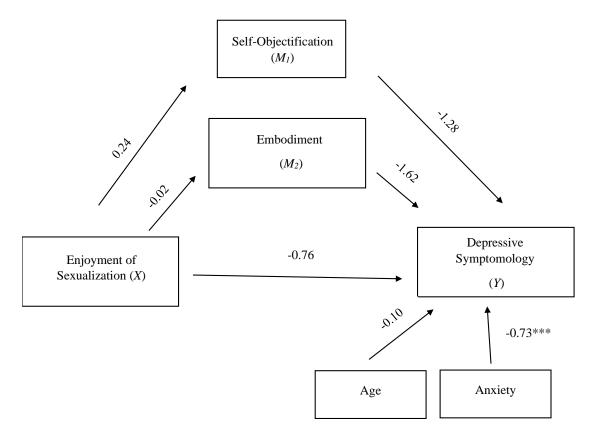
105

indirect effect through self-objectification was not different than zero [-1.25, 0.40]. A 95% bias-corrected confidence interval based on 10,000 bootstrap samples indicated that the indirect effect through embodiment was not different than zero [-0.34, 0.56]. The direct effect of enjoyment of sexualization on depression was not significant (p = .479) 95% CI [-2.91, 1.38].

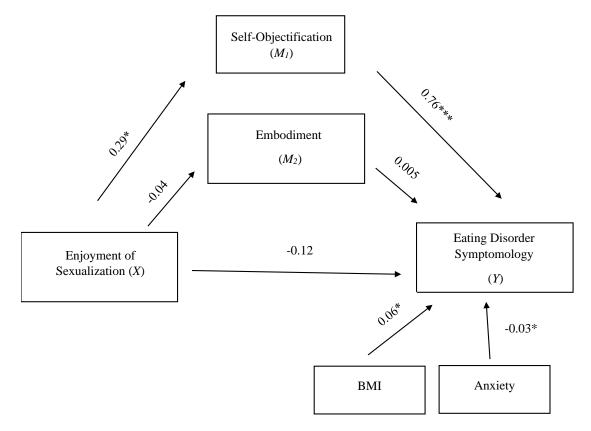
BMI and anxiety were significantly correlated with eating disorder symptomatology. Results from a parallel mediation analysis indicated that enjoyment of sexualization is indirectly related to eating disorder symptomatology through its relationship with self-objectification but not through embodiment. See Figure 11 for path coefficients. A 95% bias-corrected confidence interval based on 10,000 bootstrap samples indicated that the indirect effect through self-objectification was different than zero [0.03, 0.47]. A 95% bias-corrected confidence interval based on 10,000 bootstrap samples indicated that the indirect effect through self-objectification was different than zero [0.06, 0.02]. The direct effect of enjoyment of sexualization on eating disorder symptomatology was not significant (p = .307) 95% CI [-0.34, 0.11].



**Figure 9.** Direct and Indirect Effects of Enjoyment of Sexualization on Positive Body Image with Anxiety and Age as Covariates



**Figure 10.** Direct and Indirect Effects of Enjoyment of Sexualization on Depressive Symptomatology with Anxiety and Age as Covariates



**Figure 11.** Direct and Indirect Effects of Enjoyment of Sexualization on Eating Disorder Symptomatology with BMI and Anxiety as Covariates

Menzel and Levine (2011) originally conceptualized athletic competition as being embodying, so assessing competitor and instructor status may provide insight into the relationship between skill level and embodiment given that competitors and instructors presumably high a higher skill level.

Instructor Status. There was a statistically significant difference in embodiment between instructors and non-instructors, F(1, 53) = 7.64, p = .008,  $d_{Cohen} = -0.81$ . Instructors scored significantly higher (M = 6.24, SD = .55) than non-instructors (M =5.58, SD = .90). There was a statistically significant difference between instructors and non-instructors on positive body image F(1,54) = 4.05, p = .049,  $d_{Cohen} = -0.61$ , with instructors (M = 4.22, SD = .61) having higher scores than non-instructors (M = 3.81, SD= .69). There was no significant difference in ED symptomatology between instructors and non-instructors, F(1, 52) = .118, p = .732,  $d_{Cohen} = 0.11$ . Instructors scored lower (M = 2.15, SD = 1.41) than non-instructors (M = 2.30 SD = 1.34). There was no statistically significant difference between instructors and non-instructors on self-objectification, F(1, 1)54) = .606, p = .440,  $d_{Cohen}$  = 0.24. Instructors scored lower (M = 3.86, SD = .95) than non-instructors (M = 4.11 SD = 1.07). There was no statistically significant difference between instructors and non-instructors on enjoyment of sexualization, F(1, 53) = 2.20, p = .144,  $d_{Cohen}$  = -0.45. Instructors scored higher (M = 5.34, SD = 0.83) than did noninstructors (M = 4.92, SD = 0.98).

**Competitor Status.** There was no statistically significant difference in embodiment between recreational pole dance competitors and non-competitors, F(1, 53) = 1.97, p = $.167, d_{Cohen} =$ -0.39. However, the expected trend was observed in such that competitors had higher levels of embodiment (M = 5.95, SD = .81) compared to noncompetitors (M = 5.62, SD = .88). There was no statistically significant difference in positive body image between competitors and non-competitors, F(1, 54) = .494, p = .485,  $d_{\text{Cohen}} = -0.19$ . In line with embodiment theory competitors scored higher (M = 3.99, SD =.68) than non-competitors (M = 3.86, SD = .71) on positive body image. There was no statistically significant difference in ED symptomatology between competitors and noncompetitors F(1, 52) = 1.34, p = .253,  $d_{Cohen} = 0.31$ . However, competitors exhibited lower scores (M = 2.04, SD = 1.23) then non-competitors (M = 2.46, SD = 1.44). There was a statistically significant difference between competitors and non-competitors on self-objectification, F(1, 54) = 5.00, p = .03,  $d_{Cohen} = 0.61$ . Competitors scored lower (M = 3.72, SD = 1.08) than non-competitors (M = 4.35, SD = .99). There was no statistically significant difference between competitors and non-competitors on enjoyment of sexualization, F(1,53) = 1.93, p = .170, d = 0.38, with competitors (M = 4.86, SD = .94) scoring lower than non-competitors (M = 5.22, SD = .94).

## **Qualitative Reports**

Open ended questions were incorporated into the Pole Dancing Questionnaire in order to supplement quantitative data, with a focus on understanding participants' perceptions of recreational pole dancing and its relationship to empowerment.

## Why do you pole dance? What does pole dancing do for you?

Pole dance appears to mean a lot to participants, providing them with a sense of empowerment, confidence, community, and focus. A common theme was that pole dancing allowed participants to set goals for themselves, overcome challenges, and embrace their successes. This is exemplified by one participant who wrote, "*I love that I always have goals to chase \*and\* successes to be proud of*." Participants also acknowledged that the community of women that surrounded them was a particularly important part of what pole dancing meant to them, "*It's a safe space for me, where women can feel free and … support one another.*" Participants also took pride in having an active role in perceiving that they had a positive impact on others, "*I now help others find the inner courage to begin to love themselves too. It is the most rewarding thing I have ever done.*"

The artistic and athletic aspects of pole dancing seemed to provide participants with physical activity that was more "fun" than going to a traditional gym, "*I want to exercise but I hate the gym and would never go alone, but pole is more fun.*" Indeed, participants reported perceiving pole dancing as a mind/body activity that resulted in holistic change, "*Pole dance has changed my mind body and soul. I am stronger in all aspects of life.*" Along a similar vein, pole dancing seemed to allow participants to view both themselves and physical activity in a way that was more conducive to their mental health. Three participants indicated that pole dancing had a positive impact on their ED, one participant stated, "*For the first time in my life (as a person who* 

struggled with eating disorders in the past) I am generally comfortable with my body." Overall, individuals who participant in pole dancing appear to perceive it as being an overwhelmingly positive experience, summed up by one participant "Pole dancing helps me feel alive, and helps me feel like the best version of myself."

#### What do you like about pole dancing?

When asked more specifically about what elements of recreational pole dancing participants enjoyed, responses generally reflected the information provided above. Participants' responses mainly focused around the affective aspects of recreational pole dance (i.e., how it made them feel). Specifically, being able to "flow," "creating something beautiful", and express emotions through dance. This is exemplified by a participant who noted, "*I can create choreographies that are meaningful to me and express my emotions through movement*." Similarly, participants also tended to note that they enjoyed the way they felt about their bodies as a result of participating in recreational pole dance (e.g., "*I started with a pretty negative body image with a lot of emotional baggage to unpack after a bad relationship with someone who constantly criticized my body. Pole helped fall back in love with myself.*").

Participants also reported enjoyment from the level of difficulty it takes to learn moves and tricks, and as such, successfully landing a trick was a highly rewarding experience. It also appears that participants perceive recreational pole dancing as an activity where there is continually room for improvement, which is considered exciting and as an opportunity for growth. One participant stated, *"There is nothing like mastering*  a trick. And pole dancing is also the type of sport/activity where there are opportunities to improve in so many areas. Each day you can do at least one thing that makes you feel as though you've progressed."

One interesting finding was that some participants indicated appreciating the choice pole dancing gave them. As mentioned in previous sections of this paper, recreational pole dancing has many styles that one can choose to participate in (i.e., exotic, sport, drama). Participants indicated appreciating that they could choose how they wanted to dance, and that there was flexibility in the discipline. This is exemplified by one participant who stated, "*I love that pole dancing has so many different forms. I love doing skills and routines that are strength based; other days are flexibility based; and others are low flow and sexy. I love how confident it makes me feel.*" This suggests that women may feel particularly empowered by their ability to tailor recreational pole dancing to their mood, preferences, skills, and style daily.

Finally, several participants mentioned that they liked the community aspect of recreational pole dancing. Participants indicated that they were appreciative of having a supportive group of friends around them to lift them up during training, and that they felt it was important for a women's well-being to have this community, "*Dance is therapeutic and women need their squad. I think if you come into the studio and spend an hour working out with your friends, complementing each other, feeling pride in your own personal progress, you leave the studio as a better, more stable person." What draws* 

participants to recreational pole dance is perhaps best summed up by one participant who stated: "I love the way it gives me a new perspective on what beauty and strength is. I now appreciate my body and love to see all the different ages and bodies doing amazing things. We are a community of women, men, and gender fluid folks supporting one another."

## Stigma surrounding recreational pole dance

Participants were asked to indicate if they believed there was stigma associated with recreational pole dance (Yes/No) and to explain why they believed this to be the case. The majority of responses indicated that there was a perceived stigma surrounding recreational pole dancing, and that this stemmed from its association with sex work or "stripping." Indeed, individuals acknowledged that the stigma surrounding recreational pole stems from society's stigmatization of sex work, "*It brings up society's negative outlook on strippers when society refuses to see the good in stripping and the beauty and strength in pole dancing (regardless of dance style).*"

Along a similar vein, participants seemed frustrated with individuals' misconceptions about why people choose to engage in this activity, specifically others' projections of heteronormative ideals and hostile sexism. For instance, one participant laments about how people treat it as something she should do only for her husband stating, "*I've had people tell me that that its not exercise or difficult but "they would understand if I was doing it for my husband.*" A lot of people assume that you'd only do it to impress the opposite sex." Similarly, one participant acknowledges this bias, "People seem stuck on the association with stripping. Their limited knowledge leaves them struggling to grasp the reality of pole dancing as a form of fitness, a sport, or anything beyond something designed to please men." Another participant points out society's stereotypes about individuals who choose to engage in sexualized activities, "Because it's associated with stripping people think that we must have some sort of deep rooted insecurity when it's the opposite."

What was particularly interesting was that most participants seemed to be able to brush this stigma off and felt that it was their responsibility to challenge the stigma people feel towards sex workers. As such, one participant wrote "*There's a stigma because of the affiliation with sex work, it's the responsibility of pole dancers to stand up for sex workers.*" Overall, participants seemed to be supportive of sex work, acknowledging the roots of recreational pole dancing, but wanted people to see that the activity (and by association women's bodies) do not have to be inherently sexualized and stigmatized. This is highlighted by one participant who states, "*I support sex work 100%, but I personally pole for a hobby and not to pursue sex work, and I feel like people think that pole dance is solely for the purpose of sex work and can't be appreciated as an art/form of dance by itself.*" The sense of community, positive benefits accrued from pole, and acknowledging that sex workers brought pole dance into the mainstream may contribute to participants' willingness to ignore the stigmatization from other while advocating for sex workers.

## Pole Community

The majority of responses highlighted the positive aspects of the pole community, and the majority of responses considered the pole community to be supportive, empowering, and diverse. Participants reported feeling supported for who they are, as well as how their pole journey is progressing. In terms of personal acceptance one participant notes "I've struggled with body image problems most of my life, but I never feel judged when I'm in only booty shorts and a sports bra… [The people I meet] provide me with an emotional outlet I feel safe and comfortable seeking out. By far one of the quickest communities to feel acceptance in that I've ever been a part of." Another speaks to the acceptance of diversity within the community noting "Open, supportive and Friendly. Body positive. Super sex positive. Super LGBT friendly. Mental health friendly (which is a big deal for me as I suffer from anxiety and depression)."

A subset of participants noted that there are negatives within the pole community such as drama, jealousy, and a divide between sex workers and non-sex workers. This subset of responses can be exemplified by one participant who wrote, "*but, as within any groups of humans, I've experienced all the opposite things too (jealousy, vanity, pettiness)*—which I see as the result of women whose feelings of insecurity still come out ... I \*have\* also seen conservatism even within the pole community, including anti-SW stigma, which I suppose is just a natural result of pole becoming mainstream."

## **Defining Empowerment**

Participants conceptualized empowerment as feeling confident in oneself, and feeling in control of one's life, or as one participant put it *"feeling at your best.*" Participants perceived recreational pole dance as empowering because it assisted them in feeling "in" their bodies and enabled them to focus internally instead of being concerned with the opinions of others. One participant describes it as such, *"Empowerment is deriving your own worth from and internal source rather than relying on the perception of others. Poling is very empowering because it makes you appreciate what your mind and body can do when you work hard.*" Specifically, many participants highlighted that they now focus on what their bodies can do instead of how their bodies look, and that the confidence they have gained from conquering difficult tricks has transferred into other aspects of their lives (e.g., their careers). It is this *"mindset shift*" as one participant called it, that appears to be particularly empowering.

The description of empowerment from participants seems to significantly overlap with the definition of embodiment as proposed by Menzel (2010), "a state in which one experiences one's body as an essential and loved aspect of one's lived experiences" (p. v). Mindfulness, non-judgmental awareness, also appears to be a significant component of empowerment for these women. Embodiment and mindfulness are reflected in the following response: "*Empowerment is stepping into one's strength to live their life in a way that feels fulfilling and provides a sense of control over what's reasonably controllable. Pole dancing is empowering because it fosters the development between*  mind and body. With body awareness/insight, people are more equipped to experience other parts of their life more deeply."

Finally, participants conceptualized recreational pole dancing as empowering because of its opposition to the patriarchy. Participants expressed their satisfaction with feeling that pole "[allowing] people particularly women, to take back ownership of their bodies from a patriarchal system" typically in the context of a supportive community. Further, it was expressed that recreational pole dancing also helped some women deal with their own internalized misogyny. One participant specifically expressed, "It's incredible how jealous I used to be, and now after doing pole and teaching pole, I've found that I'm not jealous of other women's bodies like I used to be. Hating one's own body is the secondleast empowering thing I can think of, next to hating one's whole self (mind/body/"soul")." Here, the participant explains how recreational pole dancing has helped her stop feeling jealous of other women's appearances. In the same vein, one participant expressed that part of recreational pole being "anti-patriarchal" was "that [it] "inverts" patriarchy, which is the same thing that oppresses strippers and other sex workers." Here, the participant associations sex work with patriarchal oppression. The concept of sex workers as being oppressed is highly debated among feminist scholars

(Klein et al., 2014).

#### **Final Thoughts**

When asked if there was anything else participants wanted me to know, the majority echoed previous comments about the positive impact recreational pole dancing

has had on their lives. For example, "It's my therapy. Has helped me to keep positive & enabled me to be able to cope with a lot of stressful situations." Similarly, some reiterated the positive mental health benefits pole has had, specifically in regard to body image and ED, "Pole has helped me recovery from my addiction to exercising and my anorexia. Pole forces me to pay attention to my food in a healthy way. If I don't eat I physically cannot pole or experience healthy and timely muscle recovery." And some shared how pole has helped them become more open minded and accepting by promoting personal growth and acceptance, "It's changed my views on strippers and lap dancing clubs. I feel less threatened because I feel better and less insecure about myself now."

## **Responses and Analyses of Participants Identifying as Sex Workers**

Seven participants indicated 'yes' to the question asking if they were currently or

formerly engaged in sex work. Four participants indicated other, and all responses indicated current or previous engagement in sex work. As such, n = 11 individuals engaged in sex work. While we did not have adequate power to run mediational analyses, we provide descriptive statistics pertaining to this sample's scores on ED symptomatology, self-objectification, embodiment, depressive symptomatology, enjoyment of sexualization anxious symptomatology, and positive body image (See Table 10). We also explore this group's specific responses to the qualitative questions pertaining to their perceptions and experiences with recreational pole dance. Individuals identifying as sex workers scored lower on self-objectification, and higher on enjoyment of sexualization, embodiment, and positive body image than both recreational pole dancers and university students sampled by Pellizer et al., (2016)<sup>3</sup>. Additionally, participants scored below the cut-off (16.00) that identifies individuals who are at high risk for clinical depression. However, individuals did score in the 97<sup>th</sup> percentile on the STAI, indicating elevated levels of anxiety.

## Table 10.

Mean scores on predictor and outcome variables for individuals identifying as Sex Workers

	Current Study M (SD)		
	n = 11		
Global EDE-Q <sup>†</sup>	2.19 (1.76)		
Restraint <sup>†</sup>	2.24 (2.03)		
Weight Concern <sup>†</sup>	2.36 (1.75)		
Shape Concern <sup>†</sup>	2.29 (1.80)		
Eating Concern <sup>†</sup>	1.86 (1.73)		
Enjoyment of Sexualization	5.18 (1.13)		
Embodiment	5.99 (.94)		
CES-D	13.27 (8.37)		
STAI	59.55 (7.02)		
Self-Objectification	3.88 (1.34)		
Positive Body Image	4.18 (.62)		

†n=10

<sup>&</sup>lt;sup>3</sup> t-tests were not performed due to low power

## CHAPTER IV QUALITATIVE RESPONSES OF INDIVIDUALS IDENTIFYING AS SEX WORKERS

*Why do you pole dance? What does pole dancing do for you?* When asked about what pole dancing does for participants, responses focused

around perceived mental, social, and physical benefits of recreational pole dance. For instance, participants reported feeling empowered, and appreciated that pole was something where they could continually see growth/improvement. One participant noted, "It's one of the only hobbies I've ever had where I actively see myself progressing and getting better, being able to do something today that I couldn't do vesterday." Additionally, participants described being able to get into a flow state during pole, and that it had a calming effect, these were exemplified by statements such as "It's meditation for me" and "It reminds me I am capable and takes my mind off the worries I have outside of the studio." Another common element of responses centered around the community aspect of recreational pole dance, "I love the community. I absolutely love all my co-teachers and my students and even the people I "meet" through social media." Finally, it is worth noting that two individuals mentioned the positive impact pole has had on their EDs, one stated "pole gives me something outside of work or a boyfriend—or my eating disorder—to occupy my thoughts" and another stated "it has helped calm my eating disorder." This is notable given that two out of eleven (18.2%) sex workers disclosed EDs unprompted. As mentioned previously, EDs have been observed with a

high prevalence rate among sex workers and the data provided here are in line with those findings.

## What do you like most about pole dancing?

When asked about what participants liked most about pole dancing, specific responses focused mainly on feelings of empowerment, accomplishment, and mind body connection. One participant specifically addressed the intersection of empowerment and mind body connection when stating, "Experiencing and living the growth in my body and seeing how it can empower others to take on more connection to their own." Another participant focused on emotions that arise after working hard on a specific pole skill, "How capable and empowered it makes me feel when I nail a [trick] after practicing it over and over." Responses generally reflected both embodiment and flow theories in such that participants described feeling immersed in the activity and being appropriately challenged by it. Additionally, one participant went into detail about the ways in which pole was helpful in regard to their ED stating, "pole helps me not engage in the main way my eating disorder has recently been manifesting, which is a repeated cycle of binge eating and food restriction. Pole also makes me more comfortable with my body for so many reasons, partly just b/c it forces me to look at my body in little clothing in fulllength mirrors."

## Do you feel pole is stigmatizing? Why/why not?

Nine participants (81.8)% indicated yes, 2 (18.2%) indicated no. Most responses focused there being a stigma around pole due to its automatic association with stripping

and it being "*slutty*." By extension, responses also focused on other people's negative perceptions of stripping. While acknowledging the stigma that surrounds pole, many responses included ways in which participants "stood up" for sex workers, and/or deflected the stigma/negative feedback they get. For instance, one participant noted "*I don't actually mind that pole is automatically associated with stripping, since without strippers the mainstream \*wouldn't have pole\*!* ... But since there's still stigma around *stripping*—well, I think that's where the problem lies!" Another wrote, "There's a stigma because of the affiliation with sex work, it's the responsibility of pole dancers to stand up for sex workers." The themes noted were also exemplified by this response, "Totally. Omg I sometimes avoid actually saying I'm a pole dancer bc I don't want to have THAT conversation - the "oh so you're a stripper?" conversation, to which I have to go "no I'm not but not that there's anything wrong with that, you know strippers are the reason modern pole..." Etc." All in all, participants seemed to be aware of others' perceptions of the activity but felt a responsibility to try to improve others' perception of pole.

## How would you describe the pole dance community?

Overall, the responses were positive, and participants described the pole dance community as diverse, supportive, encouraging, and well-intentioned. One participant notes, "*No one cares and is open minded to what ever makes you happy*! *Those are the people I want to surround myself with.*" Some participants did note that there are some circles/groups where conservativism (e.g., anti-SW), jealousy, and cliques can emerge. For example, "*MOSTLY supportive and encouraging. There are those who think they are*  *better than others but for the most part my experience [has] been nothing out positive and motivating.*" One participant in particular noted that Instagram has made it easier for people to express less inclusive opinions.

# How do you define empowerment? Do you think pole dancing is empowering, why or why not?

Responses largely defined empowerment in terms of confidence, having autonomy, and having a strong mind-body connection. For instance, in regard to having autonomy, one participant notes, "*Finding power and autonomy within oneself, power that you find and decide, not that's given or assigned. Sure, I think it [pole] is. I think it can give permission to people to do what they want and express how they feel in a society that's told them otherwise.*" In regard to empowerment as a mind-body connection one participant writes, "*Empowerment is stepping into one's strength to live their life in a way that feels fulfilling and provides a sense of control over what's reasonably controllable. Pole dancing is empowering because it fosters the development between mind and body. With body awareness/insight, people are more equipped to experience other parts of their life more deeply.*" Another participant noted the role of a community aspect of empowerment, expressing that empowerment is "The building up of one another and of a *community. Pole dancing has shown me that I don't need to tear others down. I can empower others because there is enough space for all of us.*"

# What else would you like me to know about your experience with recreational pole dancing?

Only one participant had anything to add that had not been addressed by other questions. The participant noted, "*I had at first a really hard time accepting that I also liked the exotic side of pole dancing. I feel that women are taught from such a young age that they need to be pretty, but not over the top, sexy but only within a certain context (with their partner...) and that feeling good in your own body, unapologetic about the way you look and feeling confident with your sexuality is a sin. It took a lot of unlearning to get « louder » about who I am and what I like, but I could not go back*!" This response is reflective of third-wave feminism which focuses on women experimenting with personal choice, expressing bodily autonomy through sexual empowerment, and reclaiming of femininity and feminine pleasure.

### **CHAPTER V**

## DISCUSSION

The aim of the current study was to examine how embodiment and selfobjectification may converge to impact women's psychological well-being. This aim was accomplished by replicating previous work by Pellizer et al., (2016) and extending their work to include a focus on eating disorder and depressive symptoms. While physical activity has the potential to promote physical, and psychological well-being, it also has the capacity to negatively impact one's psychological well-being (McMahnon et al., 2017; Monge-Rojas et al., 2017; Shiroma & Lee, 2010). Beneficial outcomes such as positive body image may be promoted by embodiment, or the extent to which one feels "in" their body (Mahlo & Tiggemann, 2016), while negative outcomes such as body shame may be promoted by self-objectification, or the degree to which one takes an outsiders' perspective of their own body (Tiggemann & Slater, 2015). Despite objectifying elements, women may seek out and enjoy sexualization because of perceptions of empowerment, and embodiment. Recreational pole dancing affords researchers the benefits of studying these constructs concurrently as this activity contains both embodying (i.e., requires a high level of skill and trust) and objectifying (i.e., costuming) elements.

The results of Pellizer et al., (2016) did not replicate in this sample, and we failed to find a parallel mediation of enjoyment of sexualization's association with positive body image through self-objectification and embodiment. However, self-objectification, embodiment, and enjoyment of sexualization did all have a direct association with positive body image (H1). When examining ED and depressive symptomatology, recreational pole dancers in our sample scored higher than community norms on all subscales of the EDE-Q except shape concern. This suggests that recreational pole dancers may be more concerned about what and how much they're eating, and their weight than community women, but are less (or equally) concerned about the shape of their body. Recreational pole dancers did score significantly lower than clinical norms on all subscales of the EDE-Q (H2a). A similar pattern was noted for depressive

symptomatology – recreational pole dancers scored higher than community norms but lower than clinical norms (H2b). Elevations of eating disorder and depressive symptomatology relative to community women may be due to the observation that several participants disclosed previous clinical history related to eating disorders and depression.

Along a similar vein, enjoyment of sexualization was not associated with depressive symptoms through its relationship with self-objectification or embodiment. However, embodiment had a significant negative association with depressive symptoms (H3). Selfobjectification was significantly associated with ED symptomatology, but the mediation model in which enjoyment of sexualization is hypothesized to be associated with ED symptomatology through self-objectification and embodiment was not significant (H3).

The mediation model examining the influence of enjoyment of sexualization through self-objectification and embodiment was similar when accounting for overall levels of physical activity (METs; H4). The overall mediation model was not significant, but enjoyment of sexualization had a direct positive association with positive body image, self-objectification was negatively related to positive body image, embodiment was positively related to positive body image, and METs appeared to have a negative relationship with positive body image. In regard to depressive symptoms, when using METs as a covariate, there was still a significant and negative relationship observed between embodiment and depression. METs also appeared to be significantly and

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positively associated with depression. In regard to ED symptoms, covarying METs did impact one of the model's paths. When accounting for METs the relationship between embodiment and ED symptoms became significant. The association between selfobjectification and ED symptoms remained significant. METs did not appear to be directly associated with ED symptoms (H4).

Finally, models were re-run accounting for demographic variables that correlated significantly with the variables of interest as per the analytic plan. These covariates were not used in the model by Pellizer et al., (2016) and thus in some ways may be considered exploratory. First, the mediation model examining enjoyment of sexualization on positive body image through self-objectification and embodiment was re-run with age and anxiety as covariates because they significantly correlated with positive body image. All relationships previously observed, held. Anxiety additionally appeared to be significantly associated with positive body image. When examining depressive symptoms as the outcome variable with age and anxiety in the model, the relationship between embodiment and depressive symptoms was no longer significant. Anxiety also appeared to have a significant negative association with depressive symptoms.

When examining the influence of enjoyment of sexualization on ED symptomatology through self-objectification and embodiment with BMI and Anxiety added as covariates, the model significantly changed from what is reported in hypothesis three. Self-objectification significantly mediated the relationship between enjoyment of sexualization and ED symptomatology, and the relationship between embodiment and ED symptoms became positive (although not significant, and the beta weight very small). BMI was also positively associated with ED symptoms, while anxiety was negatively associated with ED symptoms.

#### **Enjoyment of Sexualization**

Enjoyment of sexualization is an emerging and complex area of study as it has been linked to both positive (e.g., psychosexual health; Barnett et al., 2018) and negative (e.g., alcohol use; Tack & Stolteberg, 2018) outcomes. Additionally, the construct is highly scrutinized by feminist scholars as some surmise that it represents a reclaiming of femininity and an expression of individual choice while others argue that women's engagement in sexualizing activities serves to justify women's subordinance to men in society – regardless of feelings on an individual level (Allen & Gervais, 2012). Within the context of physical activity, the sexualization of women athletes and their athletic achievements occurs regularly (Cramer et al., 2014; Fink et al., 2014). When Olympic athletes are shown in provocative clothing (compared to normal attire) they are objectified and hypersexualized (i.e., rated higher on attractiveness and sexual experience), as well as perceived as having less strength, determination, and intelligence (Gurung & Chrouser, 2007). Relatedly, experimental research suggests that viewing performance focused images are associated with decreased self-objectification and greater body satisfaction for women collegiate athletes (Reichart Smith, 2011). Current

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research suggests that enjoyment of sexualization has negative impacts on body image, depressive symptoms, and disordered eating (Liss et al., 2011). As such, our results in which enjoyment of sexualization was positively associated with positive body image, negatively associated with depression, and negatively associated with ED symptoms differ than those obtained by Liss et al., (2011). However, the positive association between enjoyment of sexualization and positive body image does replicate findings obtained by Pellizer et al., (2016); although our effect size was slightly smaller (H1).

It is possible that enjoyment of sexualization's relationship with positive body image stems from perceptions of desirability, congruence with dominant attractiveness ideals, and attention from men as research has associated enjoyment of sexualization with sexual self-esteem (Erchull & Liss, 2014). When women enjoy sexualization they may feel a congruency between their current selves and an "ideal" or "ought" self. Indeed, discrepancies between this current and ideal self have been associated with ED symptoms and depressed affect (Castonguay et al., 2012; Heron & Smyth, 2013; Zeigler-Hill & Noser, 2015), but also health promoting behaviors in specific circumstances (Kim & Sundar, 2012). As such, enjoyment of sexualization may be beneficial to the degree to which women feel congruency between their current self, and their desired or socially ascribed self. In order to understand this relationship, future work should assess congruency between women's current and ideal selves, alongside their levels of enjoyment of sexualization. Note however, that this does not say whether enjoyment of

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sexualization is beneficial for women on a gender equality level. It appears that enjoyment of sexualization is associated with psychological outcomes in the desired direction at the individual/group level, however, if enjoyment of sexualization's benefits rest on women's congruence with societal body ideals than it may be detrimental on a societal level as is maintains a focus on a patriarchal and hegemonic norms for women's bodies. Future work should seek to clarify the mechanisms underlying the link between enjoyment of sexualization and positive body image, depressive symptoms, and eating disorder symptoms.

# Self-Objectification and Embodiment: Positive Body Image

Engaging in physical activities that can be highly sexualized may enact taking an outsiders' perspective of the body (i.e., self-objectification) because one is focused on one's appearance ("looking sexy") or it may enact feeling in the body (i.e., embodiment) because one is focused on how one feels ("feeling myself"). Enjoyment of sexualization was not significantly associated with self-objectification or embodiment, and mediation was not present – thus, this study failed to replicate the findings of Pellizer et al., (2016)(H1).

In partial support of Pellizer et al., (2016) however, self-objectification was negatively associated with positive body image and embodiment was positively associated with positive body image (Pellizer et al., 2016). Notably, our effect size for the relationship between self-objectification and positive body image was smaller than that obtained by Pellizer et. al., (2016) while our effect size for the association between embodiment and positive body image was larger. Research also highlights the role of costuming in these effects, such that "revealing" clothing is more likely to elicit selfobjectification and subsequently body shame compared to "modest" clothing (Tiggemann & Andrew, 2012). Given that "revealing" clothing is necessary for recreational pole dancing (in order to prevent slipping and subsequent injury) this may increase the likelihood that individuals' insecurities and negative feelings about their body are brought into awareness, especially if mirrors are present.

Recreational pole dance instructors should attempt to bring participants' attention to how their body feels and shifting focus away from one's appearance in the mirror may help minimize these effects. Indeed, while the path from self-objectification to positive body image and from embodiment to positive body image were both significant, the effect size for self-objectification was small while for embodiment it was large. This suggests that emphasizing embodiment may help negate associations with selfobjectification. Embodiment has previously been associated with positive body image (e.g., Mahlo & Tiggeman, 2016) and can be bolstered through connecting with the body in a way that counteracts adverse social influences (e.g., positive self-talk), physical agency (e.g., participating in activities on is passionate about – not for external reasons such as weight loss), and engagement in attuned self-care (e.g., acknowledging and respecting bodily, emotional, and relational needs; Piran, 2016). Promoting such principles within recreational pole dance spaces could further bolster embodiment and enhance positive body image among participants.

Current research may point towards the beginning of a trend in men's attitude changes towards a more inclusive conceptualization of masculinity when participating in women dominated/feminine spaces (Anderson, 2005). Anderson's (2005) work with men who are cheerleaders suggest that heterosexual men in collegiate cheerleading today are evenly split between adopting an "orthodox" masculine performance (i.e., emanating hegemonic masculinity by devaluing women and gay men) and "inclusive" masculine performance (i.e., acknowledging the feminine underpinnings of cheerleading, and valuing/supporting sexual minority teammates). This may also be relevant to men in recreational pole dancing, further work should explore men's conceptualization of masculinity in this space. It is possible that heterosexual men who participate in recreational pole dancing exhibit this more inclusive construction of masculinity which does not equate with the harmful male gaze and objectification of women that is present in other hegemonic forms of masculinity. In other words, women may feel comfortable and not threatened by men in recreational pole spaces because they exhibit a respect and appreciation of femininity and women. This could then possibly reduce the consequences of objectification theory as the theory rests on the foundation of the male gaze being harmful, and women as passive victims of the male gaze (Klein et al., 2014).

While women are as likely to objectify women as men (Bernard et al., 2012) the effects of such have not been thoroughly explored in the literature. However, competency may attenuate the impact of women's objectification by other women. Johnson and Gurung (2011) tested the hypothesis that priming competence may reduce women's objectification of other (provocatively dressed) women and increase assumptions about others' capabilities. Participants (n = 154 undergraduate women) completed demographic forms and then saw three models in a counterbalanced order. The models represented an academic competency condition, an athletic competency condition, and a control. After viewing the models, participants' assessed the models' capabilities (e.g., determined), objectification (e.g., sexy), and personal characteristics (e.g., feminine). Their hypothesis was supported – the mean objectification for the control (where competency was not primed) was higher than in the academic competency condition. Interestingly, models in the athletic competency condition were rated lower on behavioral elements of objectification but not visual elements. Compared to the control condition, models in the athletic competency condition were rated as less promiscuous, less likely to be in a shortterm fling, and less likely to use their bodies to get what they wanted but there were no differences for ratings of attractiveness or sexiness. The models in both competency conditions were also attributed more capabilities; they were rated higher than the controls on determination, independence, responsibility, studiousness, and talent. Models in the competency conditions were also seen as less feminine, but more honest, likeable, and trustworthy. These findings suggest that displaying competency can impact the degree to

which provocatively dressed women are assessed by other women. Given that women in recreational pole dancing classes all understand the skill and competency required to perform such moves, the negative effect of objectification may be lessened here, thus explaining this study's deviations in effect size from prior work.

As such, the link between enjoyment of sexualization and positive body image may not be mediated through self-objectification in this instance because these women do not view themselves are "performing" for others and feel comfortable in the presence of classmates. In contrast, it is possible that trait levels of self-objectification are more directly related to positive body image (lessening it) because women are in environment where they are required to view their bodies in "revealing" clothing and thus, have the opportunity to see their "flaws" (i.e., the ways in which they may differ from sociocultural constructs of beauty). Embodiment may be related to positive body image (increasing it) by directing participants focus to how their body feels, and what it can do. The presence of embodied experiences can be increased through instructor cueing that highlights attunement with the body.

# Self-Objectification and Embodiment: Eating Disorder Symptomatology

Self-objectification had a strong association with ED symptomatology, even after controlling for physical activity, BMI, and anxiety. Additionally, in this model, mediation was significant. Enjoyment of sexualization was significantly associated with ED symptomatology through self-objectification. While engagement in sexualized activities

and enjoyment in doing such does not necessarily mean that women endorse hegemonic views of femininity, these activities often include "presenting themselves in ways that conform to traditional (sexually objectifying) male ideals" (Klein et al., 2014, p. 82). In other words, engaging in these activities often requires women to adopt a man's view of their bodies in order to gain this "control" or "sexual empowerment". Research shows that women misperceive men's ideals for women, perceiving them to desire thinner women than they actually do (e.g., Grosshard et al., 2011), thus women who selfobjectify may be hyperaware of parts of their body which they do not feel measure up to societal ideals, especially their weight which may explain the mediation only being significant when BMI is taken into account. Further, women who are (or perceive themselves to be) overweight are likely to choose clothing as a means of camouflaging their bodies while women who have higher trait self-objectification tend to choose clothes for fashion (Tiggemann & Andrew, 2012b). Women who participate in sexualized activities may thus feel uncomfortable or "exposed" in revealing clothing, especially when viewing the self through a traditional male lens of women's beauty standards. This may relate to weight and shape concerns that underlie disordered eating patterns. Accounting for anxiety may have also illuminated this relationship as anxiety (specifically appearance anxiety) has been noted to be associated with decreased flow states, and feelings of being "in" the body (Greenleaf & McGreer, 2006).

Conversely, embodiment had a negative association with ED symptoms (H3), significantly so when physical activity was taken into account (H4). This association became positive and non-significant when accounting for BMI and anxiety (exploratory analyses); notably the effect size of the association between embodiment and ED symptoms very small for this model. This contradictory pattern of findings is difficult to explain, and replication is necessary. A core feature of ED is the over-evaluation of shape and weight often explained by a disturbance in interoception and in the lived experiences of their bodies (embodiment). Previous work suggests that cultivating embodiment through physical activities such as yoga reduces risk factors for eating disorders such as body surveillance (Cox et al., 2020), and randomized controlled trials of yoga treatment for out-patient eating disorder patients shows promise (i.e., reductions in eating disorder symptoms, e.g., Carei et al., 2010). Further still, dance movement therapy was shown to be effective at improving body image and increasing self-awareness among a sample of women diagnosed with ED (Savidaki et al., 2020). Overall, the literature and results obtained here suggest embodiment has an important association with ED symptoms. The conflicting finding regarding the positive association between embodiment and ED symptoms when accounting for BMI may be an artifact (Type II error) or may stem from individual's discomfort with embracing their bodies at larger sizes. It is possible that a lack of diverse body representation, and weight stigma/bias may result in negative affect and increase compensatory behaviors (Piran & Neumark-Sztainer, 2020; Williams & Annadale, 2018).

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#### Self-Objectification and Embodiment: Depressive Symptomatology

Self-objectification had a positive (though non-significant) association with depressive symptoms with a moderate effect size (H3), this effect size became small when accounting for physical activity (H4), and reversed directions and became large when accounting for age and anxiety (Exploratory analyses). Previous research consistently finds a relationship between self-objectification and depression (for an exception see Cohen, 2009), the association is often direct, but a substantial number of studies report that the relationship is mediated by body shame, appearance anxiety, and/or body awareness (Jones & Griffiths, 2015). The change in the relationship between selfobjectification and depression when accounting for anxiety is counterintuitive given the high correlation between anxiety and depression, however, general anxious tendencies measured here may capture physique anxiety which have been noted as a mediator of the association between self-objectification and depression (e.g., Szymanski & Henning, 2007). Future research should incorporate measures of physique anxiety to examine this hypothesis. Further, research has highlighted that self-objectification decreases with age (Szymanski & Henning, 2007). Body image and associated factors have been noted to change throughout the lifespan; specifically, while body dissatisfaction remains stable across the age range, self-objectification, appearance anxiety, and disordered eating symptomatology all significantly decrease with age (Tiggemann & Lynch, 2001). Indeed, mean levels of self-objectification are typically higher among younger women relative to

older women (Greenleaf, 2005). Thus, age may explain the conflicting results obtained in exploratory analyses.

Embodiment had a significant negative relationship with depression and had a large effect size (H3). This finding held when taking into account physical activity (in fact the effect size increased; H4). However, the effect size became smaller, and non-significant when accounting for age and anxiety. This may stem from changes in body awareness as women age. Augustus-Horvath & Tylka (2009) tested the appropriateness of Objectification Theory for examining disordered eating in older women relative to the typically used college age women. Researchers noted the older group had a stronger relationship between body shame and disordered eating and a weaker relationship between poor interoceptive awareness (i.e., embodiment) and disordered eating than did the younger group. While this study examined disordered eating and not depressive symptoms, it is possible the findings extend such that embodiment may be particularly important for younger women, but not so much for older women. Given our sample was older that the typical college population, future research should attempt to examine age related differences in these processes. Very little work has directly examined embodiment promoted through physical activity and taking anxiety into account specifically. However, related work shows that changes in embodiment through yoga practice are associated with increased positive affect, and decreased negative affect (Impett,

Daubenmier, & Hirschman, 2006). Future work should explore this conflicting finding, and replications would be useful in assessing the robustness of this link.

# **Comparison Samples**

While the sample used in the current study exhibited significantly less ED symptomatology than comparison samples of clinical norms, the current sample exhibited significantly higher ED symptomatology than community norms (with the exception of shape concern) thus partially supporting H2. In the current sample, depressive symptoms were also higher than those reported by community samples (non-significant), and significantly lower scores than clinical samples (H2). Participants were not screened for prior psychiatric history, although several participants disclosed previous ED, and struggles with depressive symptoms in their qualitative responses. Additionally, participants referenced the importance of mental health acceptance in the pole dance community in their qualitative responses, which may suggest additional participants' with psychiatric or mental health histories. These participants may have inflated group scores on the measures of ED and depressive symptoms. Importantly, individuals who self-identified as recovered/in recovery from an ED do not always show diminished ED symptomatology (Slof-Op't Landt et al., 2019).

# Limitations

Due to missing data, the sample size used in this study was notably smaller than desired. Using the effect size (.32) from Pellizer et al., (2016) it was estimated that we

needed an N of 46 to run our mediation analyses. Given that our effect sizes were smaller than that of Pellizer et al., (2016) post-hoc power analyses revealed a necessary sample size of 92 participants for adequately powered analyses. With mean replacement, our sample for the mediational analyses consisted of approximately 79 recreational pole dancers, resulting in an obtained power of .73. Thus, the current study was slightly underpowered for testing the proposed hypotheses. As such, Type I and Type II errors cannot be ruled out. Relatedly, the sample was predominately white. The results obtained from this study can thus only be generalized to white women who are primarily welleducated, well-off, and are in young to middle adulthood. The relationships observed in the current study may differ among various ethnic/racially marginalized groups due to reported differences in ideal body images (e.g., Perez & Joiner, 2003), and presentation of disordered eating symptoms (e.g., Frank et al., 2007; Lee-Winn et al., 2014). However, the underrepresentation of diverse bodies, ethnicities, and races in the literature represents a need for further work. Very little work has been done with Black women who pole dance; however, Robinson (2019) indicates that pole has become a form of healing for some Black women who report that it has enabled them to become more in touch with their bodies, gain confidence, develop agency over their bodies, and connect with other women. This suggests that relationships observed in the current study may be upheld, but women of color are sexualized in different ways than white women and further work is needed to understand these nuanced relationships.

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Along a similar vein, queer individuals may be sexualized in different way from their non-queer/heterosexual individuals (van Esch et al., 2017). In the current study, there was a surprisingly large representation of non-heterosexual identifying individuals although the sample was too small to run mediation analyses on this group alone or compare models between non-heterosexual and heterosexual individuals. Most of the dependent measures of this study had a very heteronormative frame, and thus, might not be fully applicable to sexual minority individuals, leaving open the possibility that these constructs operate differently in these persons. Further, there is some evidence to suggest that constructs such as depression, and anxiety may look different and have different trajectories sexual minority individuals (Burton et al., 2013; Lucassen et al., 2017).

The current study's sample was also significantly different than that obtained by Pellizer et al., (2016). It is thus difficult to determine if this replication was "successful." See Table 2 for a comparison of the current sample with that obtained by Pellizer et al (2016). One notable difference is the reporting of clinical history by current participants. The unprompted reporting of ED during the qualitative questions suggests that screening for clinical history may be necessary in future work to avoid conflated levels of ED symptoms.

# **CHAPTER VI**

# CONCLUSION

While women's engagement in sexualized activities continues to be theoretically debated by feminist scholars, the impact of enjoyment of sexualization and outcomes predicted by objectification theory on the individual level should not be overlooked. Enjoyment of sexualization had a consistent direct association with positive body image, decreased depressive symptoms, and decreased ED symptomatology. The mechanisms underlying these relationships are not fully understood but may involve individuals' perceptions of congruency between their current body and their "ideal" body.

Overall, embodiment appears to be related to positive psychological outcomes in women (decreased depressive symptoms, decreased ED symptoms, and increased positive body image). The contradictory finding that embodiment is related to increased ED symptoms in the presence of BMI and anxiety should be interpreted cautiously as the effect size was small; however, this may suggest that one's weight and trait anxiety may exert influences on these relationships. In order to foster increased embodiment, recreational pole dance instructors should focus on promoting such facets of embodying experiences during class. This can be done by examining the mechanisms proposed by Cox et al., (2020) that mediate and moderate positive embodied experiences during yoga. During class, instructors can emphasize mindfulness, self-compassion, body acceptance and appreciation, and promote participants' immersion in the activity through "flows" or short choreographies/freestyles to assist with the development of stable/trait characteristics of embodiment. Cox et al., (2020) also highlight that one's ability to have a positive embodied experience during the course (e.g., state mindfulness) may be influenced by the instructors' characteristics and the physical/social environment (e.g., mirrors, diversity of participants). The ability of participants to take experiences in the course and form stable characteristics (e.g., trait mindfulness) depends on their social and personal history (e.g., disordered eating history, experiences of stigma/trauma, self-efficacy), and by extension the ability of participants to turn these stable characteristics into actions (e.g., mindful self-care) depends on personal traits and motivation (e.g., body dissatisfaction, selfcompassion, internalization of sociocultural ideals).

Self-objectification was consistently associated with deleterious outcomes (reduced positive body image, increased depressive symptoms, increased ED symptoms). However, self-objectification mediated the relationship between enjoyment of sexualization and ED symptoms only when anxiety and BMI were accounted for. These findings provide broad support for objectification theory, which attribute women's experiences of depression and disordered eating to taking an outsiders' view of the body. Accounting for BMI may be particularly important as congruency with sociocultural body standards and weight bias/thin ideal internalization may facilitate taking an outsiders' perspective of the body (Mehak et al., 2018; Oehlhof, 2011). The beta-weights for embodiment were higher than those for self-objectification in all models, except those examining ED symptoms suggesting that embodiment is more strongly associated with

positive body image and depression than self-objectification for recreational pole dancers, whereas self-objectification is more strongly associated with ED symptomatology than embodiment for recreational pole dancers.

# **Future Directions**

The next step in untangling objectification theory as it pertains to psychological health among recreational pole dancers is to investigate sociocultural influences. Mainly, examining the role of the discrepancy between current and ideal and ought body shapes and sizes. Understanding the influence of enjoyment of sexualization in the context of discrepancies in desired appearance may further shed light on the mechanisms by which self-objectification may be harmful to women's well-being. Additionally, prospective research is needed to understand who decides to participate in recreational pole dancing, and how psychological factors are impacted throughout the course of their pole journey. While the qualitative data suggests that pole has assisted participants with their body image, ED, and overall mental health, it is important to replicate these experiences with experimental procedures. Doing such would also allow for an examination of individual differences that makes pole more/less beneficial for one's mental health. Indeed, one interesting piece of information garnered from the qualitative responses was that being forced (exposed) to one's body in little clothing helped ease disordered eating symptoms. Exposure therapy has been supported as an effective treatment for reducing disordered

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eating and clinical impairment among individuals with ED as it targets core anxieties related to the manifestation of the disorder (e.g., Levinson et al., 2014).

Further still, it is necessary to examine objectification theory in a more diverse sample (i.e., demographics, sexuality, gender). An additional related area of interest is the construction of gender identity and sexuality by participants, especially men who recreational pole dance. Men who participate in other women dominated areas have been shown to be split between more traditional and modern views of masculinity (Anderson, 2005); examining men's construction of masculinity in this space may help further explain findings in the context of objectification theory (i.e., the harmful male gaze). Finally, examining a dose-dependency would be useful. Research suggests that state changes that occur in embodiment and related mechanisms need to be practiced consistently over time in order to be maintained (Cox et al., 2020). As such, examining the length of time one needs to participate in recreational pole dancing to see benefits related to embodiment would be useful.

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Appendices

Appendix A

#### RECREATIONAL POLE DANCE PERCEPTIONS, PHYSICAL ACTIVITY, & BODY IMAGE

We are conducting research regarding recreational pole dancers' experiences with the sport, engagement in other physical activity, and body image. Your participation entails completing a 20 minute electronic survey, at your convenience! After completing the survey you can choose to be entered into a raffle for a bottle of Dry Hands! We will be raffling off three bottles per studio! No identifying information is collected in this survey, and all data will be reported in aggregate. Your participation is completely voluntary, and participation or non-participation will not effect your standing with your studio.

Survey link: https://und.qualtrics.com/jfe/form/SV\_doGHcEKnPf5S37n

# UND NORTH DAKOTA

CALLING ALL POLERS! WHAT HAS POLE DONE FOR YOU?

COMPLETE A QUICK SURVEY ON YOUR EXPERIENCE WITH POLE, PHYSICAL ACTIVITY, AND BODY IMAGE

SCAN THE QR CODE BELOW TO TAKE THE SURVEY



#### CONTACT KELLY CUCCOLO FOR MORE INFORMATION

Kelly.cuccolo@und.edu

908-247-2588

## Appendix B

Studio	Contacted	Two week	Response	Thank you e-
		follow up		mail
Zero Gravity	9/20/2019	10/4/2019	Yes	4/16/20
ExperTEASE	9/20/2019		Yes	4/16/20
Knockout			Yes	4/16/20
Bodies	9/20/2019	10/4/2019		
Tucson Pole	10/4/2019		Yes	4/16/20
Fitness				
Kinetic Arts	10/4/2019		Yes	4/16/20

## Appendix C

#### UNIVERSITY OF NORTH DAKOTA

#### **Institutional Review Board**

#### **Study Information Sheet**

<b>Title of Project:</b> Women's Empowerment and Physical Activity				
Principal Investigator:	Kelly Cuccolo, Kelly.cuccolo@und.edu			
<b>Co-Investigator</b> (s):	Heather Terrell, <u>heather.terrell@und.edu</u> , 701/777-3882			
Advisor:	Ric Ferraro, <u>f.ferraro@und.edu</u> , 701/777-2414			

#### **Purpose of the Study:**

The purpose of this research study is to understand how physical activity and feelings of sexual empowerment relate to women's psychological health. We are specifically interested in the potential psychological benefits of recreational pole fitness to women.

#### **Procedures to be followed:**

You will be asked to answer questions on a self-report survey that will take approximately 20 minutes. You can take the survey online using the link or QR code provided on the flyer. These questions will ask you about your experience with recreational pole fitness, as well as questions about your dietary habits, sexual wellness, physical activity habits, and mood.

#### **Risks:**

There are no risks in participating in this research beyond those experienced in everyday life. This Qualtrics survey asks personal questions about previous experiences that may be uncomfortable to answer. You may experience frustrating feelings that are sometimes experienced when completing questionnaires sampling content from such a wide range of topics. Some questions may be of a sensitive nature and can make you feel uncomfortable as a result. *Please feel free to leave items blank if you choose*. Most importantly, please remember that any data you offer will be stored in an electronic file that is separated from any identifying information that may be available.

If, however, you become upset by questions or procedures **you may stop participation at any time or choose not to answer a question**. If you would like to talk to someone about your

feelings about this study, you are encouraged to contact any of the following resources at your own expense:

- Northeast Human Service Center (701)795-3000
- National Eating Disorders Center Helpline (800) 931-2237
- http://warmline.org/

#### **Benefits:**

- You might learn more about yourself by participating in this study. You might have a better understanding of your own dietary and physical activity habits, as well as your experiences with pole fitness.
- This research might provide a better understanding of how different forms of physical activity impact women's psychological health. This knowledge can be used to significantly inform prevention and intervention programs.

## **Duration:**

It will take about 20 minutes to complete the survey.

## **Statement of Confidentiality:**

The survey does not ask for any information that would identify who the responses belong to. Therefore, your responses are recorded anonymously. If this research is published, no information that would identify you will be included since your name is in no way linked to your responses. If you choose to enter the raffle being held for a bottle of Dry Hands, your email address is recorded in a survey that is separate from the questionnaires you completed, as such your entry into the raffle is in no way linked to the survey data your provide.

## **Right to Ask Questions:**

The researchers conducting this study are *Kelly Cuccolo and Heather Terrell*. You may ask any questions you have now. If you later have questions, concerns, or complaints about the research please contact Kelly Cuccolo at *Kelly.cuccolo@und.edu* during the day. *You may also contact Heather Terrell at 701/777-3882*.

If you have questions regarding your rights as a research subject, you may contact The University of North Dakota Institutional Review Board at (701) 777-4279 or <u>UND.irb@UND.edu</u>. You may contact the UND IRB with problems, complaints, or concerns about the research. Please contact the UND IRB if you cannot reach research

staff, or you wish to talk with someone who is an informed individual who is independent of the research team.

General information about being a research subject can be found on the Institutional Review Board website "Information for Research Participants" http://und.edu/research/resources/human-subjects/research-participants.html

## **Compensation:**

Participants have the option to enter a raffle drawing for a bottle of Dry Hands gripping agent. At the end of the survey, there will be a link provided which will direct you to a separate survey where you can input your email address. You will be able to put your email into the drawing, and Kelly Cuccolo will randomly select winners at the end of the study period. Your entry into the raffle is recorded in a survey that is separate from your responses to the questionnaires, and there is no way to link your entry into the raffle with your survey responses.

## **Voluntary Participation:**

You do not have to participate in this research. You can stop your participation at any time. You may refuse to participate or choose to discontinue participation at any time without losing any benefits to which you are otherwise entitled.

You do not have to answer any questions you do not want to answer.

You must be 18 years of age older to participate in this research study.

Completion and return of the *survey* implies that you have read the information in this form and consent to participate in the research.

Please keep this form for your records or future reference.

I wish to participate

I do not wish to participate

## Appendix D

Demographic Questionnaire

- How old are you
  - \_\_\_\_\_ years (please type a number)
- What gender do you identify as:
  - o Male
  - o Female
  - Transgender female
  - Transgender male
  - o Gender non-binary
  - o Other\_\_\_\_
- What sexual orientation do you identify with?
  - Heterosexual (straight)
  - o Gay
  - o Lesbian
  - o Bisexual
  - o Pansexual
  - o Demisexual
  - o Asexual
  - o Queer
  - Other \_\_\_\_
- Are you Hispanic, latino, or Spanish origin?
  - o Yes
  - o No
- How do you describe your ethnicity (select as many as apply)
  - White or Caucasian
  - Black or African American
  - American Indian or alaska native
  - o Asian
  - Native Hawaiian or Pacific Islander
  - Some other race (please specify)
  - Prefer not to answer
  - o Unknown
- What is the highest level of school you have completed or the highest degree you have received?
  - Less than high school degree
  - High school degree or equivalent (e.g. GED)

- Some college but no degree
- o Associate degree
- o Bachelor degree
- o Graduate degree
- Are you currently trying to do anything about your weight?
  - Yes, actively trying to lose weight
  - Yes, actively trying to gain weight
  - Yes, actively trying to maintain my weight
  - Yes actively trying to lose fat
  - Yes, actively trying to gain muscle
  - Yes, actively trying to both lose fat and gain muscle
  - Not actively trying to alter my weight
  - Other \_\_\_\_\_
- What is your current height in inches \_\_\_\_\_
- What is your current weight in pounds \_\_\_\_\_
- How much total combined money did all members of your household earn in 2018?
  - o **\$0-9,999**
  - o \$10,000-\$19,999
  - o \$20,000-\$29,999
  - o \$30,000-\$39,999
  - \$40,000-\$49,999
  - \$50,000-\$59,999
  - \$60,000-\$69,999
  - \$70,000-\$79,999
  - \$80,000-\$89,999
  - \$90,000-\$99,999
  - o \$100,000-\$149,999
  - \$150,000 or more

## Appendix E

## Pole Dancing Questionnaire

- 1) For approximately how long have you been participation in recreational pole dance? Please indicate in months. \_\_\_\_\_
- 2) Approximately how many recreational pole dancing classes do you take per week? Please indicate a number. \_\_\_\_\_
- 3) Approximately how many minutes does each recreational pole dancing class last?
- 4) Approximately how many times per week do you pole dance outside of class (i.e. practicing at home; practicing at the studio on your own; etc)? \_\_\_\_\_
- 5) If you indicated pole dancing outside of class, approximately how many minutes do these sessions last? \_\_\_\_\_
- 6) Why do you participate in recreational pole dancing? (select all that apply)
  - a) It is fun
  - b) I enjoy performing for men
  - c) To look sexy
  - d) I enjoy dressing up
  - e) To stay "in shape"
  - f) It is different from other forms of exercise
  - g) To build muscle
  - h) To lose weight
  - i) To lose fat
  - j) For exercise / physical activity
  - k) I find it empowering
  - 1) I like the community / company
  - m) To learn moves for work (i.e. in a club)
  - n) Other  $\_$
- 7) Please order the following choices from most (1) to least (14) important reason for participating in recreational pole dance
  - a) It is fun
  - b) I enjoy performing for men
  - c) To look sexy
  - d) I enjoy dressing up
  - e) To stay "in shape"
  - f) It is different from other forms of exercise
  - g) To build muscle

- h) To lose weight
- i) To lose fat
- j) For exercise / physical activity
- k) I find it empowering
- 1) I like the community / company
- m) To learn moves for work (i.e. in a club)
- n) Other \_
- 8) Are you currently a recreational pole instructor?
  - a) Yes
  - b) No
- 9) Have you ever been a recreational pole instructor?
  - a) Yes
  - b) No
- **10)** How long have you been instructing pole? **Please indicate in months** (e.g. if you have been teaching for two years, please write 24).
- 11) Do you compete in recreational pole dancing competitions (e.g. Pole Sport Organization; Land of Lakes Pole Dance Festival)?
  - a) Yes
  - b) No
- 12) What level do you compete at?
  - a) Novice
  - b) Intermediate
  - c) Advanced
  - d) Elite
  - e) Semi-pro
  - f) Pro
  - g) Other \_\_\_\_
- 13) What category do you typically compete in
  - a) Doubles/group
  - b) Artistic dance
  - c) Performance/dramatic
  - d) Entertainment
  - e) Exotic
  - f) Floorwork / low flow
  - g) Sport
  - h) Other \_

- 14) Approximately how many regional competitions have you competed in?
- 15) Approximately how many national competitions have you competed in?
- **16)** At what level would you currently classify your level of skill regarding recreational pole dancing?
  - a) Novice
  - b) Intermediate
  - c) Advanced
  - d) Elite
  - e) Semi-pro
  - f) Pro
  - g) Other\_\_\_\_
- 17) Why do you pole dance? What does pole dancing do for you?
- 18) What do you like most about pole dancing?
- **19)** Do you feel like there is a stigma around pole dancing? If yes, please provide examples
  - a) Yes\_
  - b) No
- 20) How would you describe the pole dance community?
- 21) How do you define empowerment? Do you think pole dancing is empowering, why or why not? \_\_\_\_\_
- 22) What else would you like me to know about your experience with recreational pole dancing? \_\_\_\_\_
- 23) What other forms of exercise do you do?
  - a) Yoga
  - b) Running
  - c) Walking
  - d) Biking/cycling
  - e) Swimming
  - f) Hiking
  - g) Sports
  - h) Other dance \_\_\_\_\_
  - i) Gymnastics
  - j) Cross-fit
  - k) Weight training
  - l) Boxing/MMA
  - m) None

- n) Other\_\_\_
- 24) If you selected sports, please specify
  - a) Basketball
  - b) Baseball
  - c) Football
  - d) Gymnastics
  - e) Field hockey
  - f) Lacrosse
  - g) Soccer
  - h) Hockey
  - i) Water polo
  - j) Ultimate frisbee
  - k) Other\_\_\_\_

25) On average how many hours a week do you do the other exercise \_\_\_\_\_

## Appendix F

Body Appreciation Scale II (BAS-2; Tylka & Wood-Barcalow, 2015). Directions for participants: Please indicate whether the question is true about you never, seldom, sometimes, often, or always

Never	Seldom	Sometimes	Often
Always			

1. I respect my body

2. I feel good about my body

3. I feel that my body has at least some good qualities

4. I take a positive attitude towards my body

5. I am attentive to my body's needs

6. I feel love for my body

7. I appreciate the different and unique characteristics of my body

8. My behavior reveals my positive attitude towards my body; for example, I hold my head high and smile

9. I am comfortable with my body

10. I feel like I am beautiful even if I am different from media images of attractive people

## Appendix G

Physical Body Experiences Questionnaire Revised June 8, 2009 (Menzel, 2010). Instructions: We are interested in the experiences that people have during physical activity. There are many different ways in which a person can be physically active. Read each statement below and indicate to what extent each statement is true of you. Try to rate each statement as honestly and accurately as possible.

Based on my experiences being physically active....

- 1. I feel that my body is a source of strength
  - a. Not at all true about me (1)
  - b. 2
  - c. 4
  - d. 5
  - e. 6
  - f. Very true about me (7)
- 2. I feel that my body is a source of endurance
- 3. I feel that my body is a source of energy
- 4. I feel ashamed of my body
- 5. I feel I am capable of special physical accomplishments
- 6. I have experienced being "in the zone" in which my body, mind, focus, and performance are perfectly in tune.
- 7. I respect my body's physical limits.
- 8. I am aware of my body's physical limits
- 9. I feel that my body is able to respond to physical challenges.
- 10. Meeting physical challenges gives me a clear sense of accomplishment.
- 11. I can trust my body to learn new physical skills.
- 12. I feel that demanding physical activity helps me relieve my stress.
- 13. I have a deep connection with my body, one that makes me feel powerful and effective.
- 14. I have learned the importance of taking good care of my body.
- 15. I have put in a lot of work to make my body healthy and strong.
- 16. I have developed a connection between my body, my mind, and myself.
- 17. I trust that my mind and body will work together to help me perform my best.
- 18. I feel that demanding physical activity leaves me feeling energized and invigorated each day.
- 19. I listen to what my body needs in terms of food, rest, and recovery.

- 20. I enjoy using my body to explore new skills.
- 21. I feel that if I take care of my body, it will come through for me when I need it to.
- 22. I have a good sense of what my body can do and be for me, even with its imperfections.
- 23. I can count on my body to be prepared when it comes to meeting life's challenges.
- 24. I feel good inside of my body.
- 25. I am able to voice what things feel right and wrong for me and my body.
- 26. I feel a "rush" or "click" of excitement from mastering new physical skills.
- 27. I value my looks or what size clothing I wear more than my strength, stamina, or physical skill.
- 28. My body makes me feel empowered.
- 29. I am able to respond effectively to my body's needs

Appendix cont.

- 30. I get a sense of accomplishment from my physical achievements.
- 31. I think more about what my body can do rather than how my body looks.
- 32. I feel uncomfortable pushing my body's physical limits.
- 33. I notice the strength of my body throughout many of my daily activities.
- 34. I feel a connection between my physical energy level and the clarity of my thoughts.
- 35. I feel that I can trust my body to perform for me when I need it to.
- 36. I feel that I can trust my body to handle physical challenges in life.

#### Appendix H

Objectified Body Consciousness Scale (McKinley & Hyde, 1996). For the following statements, please think about how you feel about yourself and your body and rate to what extent you agree or disagree with each item. You may also select N/A (does not apply) if the item does not apply to you.

- 1. I rarely think about how I look.
  - a. Strongly Disagree (1)
  - b. 2
  - c. 3
  - d. 4
  - e. 5
  - f. 6
  - g. Strongly Agree (7)
  - h. N/A
- 2. I think it is more important that my clothes are comfortable than whether they look good on me.
- 3. I think more about how my body feels than how my body looks.
- 4. I rarely compare how I look with how other people look.
- 5. During the day, I think about how I look many times.
- 6. I often worry about whether the clothes I am wearing make me look good.
- 7. I rarely worry about how I look to other people.
- 8. I am more concerned with what my body can do than how it looks.
- 9. When I can't control my weight, I feel like something must be wrong with me.
- 10. I feel ashamed of myself when I haven't made the effort to look my best.
- 11. I feel like I must be a bad person when I don't look as good as I could.
- 12. I would be ashamed for people to know what I really weigh.
- 13. I never worry that something is wrong with me when I am not exercising as much as a I should.
- 14. When I'm not exercising enough, I question whether I am a good person.
- 15. Even when I can't control my weight, I think I'm an okay person.
- 16. When I'm not the size I think I should be, I feel ashamed.

## Appendix I

Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). Instructions: Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the past week.

- 1. I was bothered by things that usually don't bother me.
  - a. Rarely or none of the time (less than 1 day)
  - b. Some or a little of the time (1-2 days)
  - c. Occasionally or a moderate amount of time (3-4 days)
  - d. Most or all of the time (5-7 days)
- 2. I did not feel like eating; my appetite was poor.
- 3. I felt that I could not shake off the blues even with help from my family or friends.
- 4. I felt I was just as good as other people.
- 5. I had trouble keeping my mind on what I was doing.
- 6. I felt depressed.
- 7. I felt that everything I did was an effort.
- 8. I felt hopeful about the future.
- 9. I thought my life had been a failure.
- 10. I felt fearful.
- 11. My sleep was restless.
- 12. I was happy.
- 13. I talked less than usual.
- 14. I felt lonely.
- 15. People were unfriendly.
- 16. I enjoyed life.
- 17. I had crying spells.
- 18. I felt sad.
- 19. I felt that people dislike me.
- 20. I could not get "going".

## Appendix J

Eating Disorder Examination Questionnaire (EDE-Q 6.0; Fairburn, & Beglin, 2008). Instructions: The following questions are concerned with the past four weeks (28 days) only. please read each question carefully. thank you. Please choose the appropriate number, remember that the questions only refer to the past 28 days

On how many of the past 28 days ...

- 1. Have you been deliberately trying to limit the amount of food you eat to influence your shape or weight (whether of not you have succeeded)?
  - a. No days
  - b. 1-5 days
  - c. 6-12 days
  - d. 13-15 days
  - e. 16-22 days
  - f. 23-27days
  - g. Everyday
- 2. On how many of the past 28 days... have you gone long periods of time (8 waking or more) without eating anything at all in order to influence your shape or weight?
- 3. On how many of the past 28 days... Have you <u>tried</u> to exclude from your diet any foods that you like in order to influence your shape or weight (whether or not you have succeeded)?
- 4. On how many of the past 28 days... have you tried to follow definite rules regarding your eating (for example, a calorie limit) in order to influence your shape or weight (whether or not you have succeeded)?
- 5. On how many of the past 28 days... have you had a definite desire to have an <u>empty</u> stomach with the aim of influencing your shape or weight?
- 6. On how many of the past 28 days... have you had a definite desire to have a <u>totally</u> <u>flat</u> stomach?
- 7. On how many of the past 28 days... has thinking about <u>food, eating or calories</u> made it very difficult to concentrate on things you are interested in (for example, working, following a conversation, or reading)?
- 8. On how many of the past 28 days... Has thinking about shape or weight made it very difficult to concentrate on things you are interested in (for example, working, following a conversation, or reading)?
- 9. On how many of the past 28 days... have you had a definite fear of losing control over eating?

- 10. On how many of the past 28 days... have you had a definite fear that you might gain weight?
- 11. On how many of the past 28 days... have you felt fat?
- 12. On how many of the past 28 days... have you had a strong desire to lose weight?
- 13. Over the past 28 days, how many times have you eaten what other people would regard as an unusually large amount of food (given the circumstances)? \_\_\_\_\_
- 14. On how many of these times did you have a sense of having lost control over your eating (at the time you were eating)? \_\_\_\_\_
- 15. Over the past 28 days, on how many DAYS have such episodes of overeating occurred (i.e., you have eaten an unusually large amount of food and have had a sense of loss of control at the time)?
- 16. Over the past 28 days, how many times have you made yourself sick (vomit) as a means of controlling your shape or weight?
- 17. Over the past 28 days, how many times have you taken laxatives as a means of controlling your shape or weight? \_\_\_\_
- 18. Over the past 28 days, how many times have you exercised in a "driven" or "compulsive" way as a means of controlling your weight, shape or amount of fat, or to burn off calories?

Please indicate the appropriate number. Please note that for these questions next 3 questions, the term "binge eating" means eating what others would regard as an unusually large amount of food for the circumstances, accompanied by a sense of having lost control over eating.

- 19. Over the past 28 days, on how many days have you eaten in secret (i.e., furtively)? Do not count episodes of binge eating.
- 20. On what proportion of the times that you have eaten have you felt guilty at you have (felt that you've done wrong) because of its effect on your shape or weight? Do not count episodes of binge eating.

- a. none of the times (1)
- b. a few of the times (2)
- c. less than half (3)
- d. half of the times (4)
- e. more than half (5)
- f. most of the time (6)
- g. every time (7)
- 21. Over the past 28 days how concerned have you been about other people seeing you eat? Do not count episodes of binge eating.
  - a. Not at all
  - b. 1
  - c. Slightly
  - d. 3
  - e. Moderately
  - f. 4
  - g. Markedly
- 22. Over the past 28 days has your weight influenced how you think about (judge) yourself as a person?
  - a. Not at all
  - b. 1
  - c. Slightly
  - d. 3
  - e. Moderately
  - f. 4
  - g. Markedly
- 23. Over the past 28 days has your shape influenced how you think about (judge) yourself as a person?
  - a. Not at all
  - b. 1
  - c. Slightly
  - d. 3
  - e. Moderately
  - f. 4
  - g. Markedly
- 24. Over the past 28 days how much would it upset you if you had been asked to weigh yourself once a week (no more, no less, often) for the next four weeks?

- a. Not at all
- b. 1
- c. Slightly
- d. 3
- e. Moderately
- f. 4
- g. Markedly

25. Over the past 28 days how dissatisfied have you been with your weight?

- a. Not at all
- b. 1
- c. Slightly
- d. 3
- e. Moderately
- f. 4
- g. Markedly

26. Over the past 28 days how dissatisfied have you been with your shape?

- a. Not at all
- b. 1
- c. Slightly
- d. 3
- e. Moderately
- f. 4
- g. Markedly
- 27. Over the past 28 days how uncomfortable have you felt seeing your body (for example, seeing your shape in a mirror, in a shop window reflection, while undressing or taking a bath or shower)?
  - a. Not at all
  - b. 1
  - c. Slightly
  - d. 3
  - e. Moderately
  - f. 4
  - g. Markedly
- 28. Over the past 28 days how uncomfortable have you felt about others seeing your shape or figure (for example, in communal changing rooms, when swimming, or wearing tight clothes)?

- a. Not at all
- b. 1
- c. Slightly
- d. 3
- e. Moderately
- f. 4
- g. Markedly
- 29. What is your weight at present? (Please give your best estimate in pounds; lbs) \_\_\_\_\_
- 30. What is your height? (Please give your best estimate in inches) \_\_\_\_\_
- 31. If female, over the past three to four months have you missed any menstrual periods? \_\_\_\_
- 32. If so, how many? \_\_\_\_
- 33. Have you been taking the "pill"?\_\_\_\_

## Appendix K

Enjoyment of sexualization (Liss et al., 2011).

- 1. It is important to me that men are attracted to me
  - a. Strongly agree
  - b. Agree
  - c. Somewhat agree
  - d. Neither agree nor disagree
  - e. Somewhat disagree
  - f. Disagree
  - g. Strongly agree
- 2. I feel proud when men compliment the way I look
- 3. I want men to look at me
- 4. I love to feel sexy
- 5. I like showing off my body
- 6. I feel complimented when men whistle at me
- 7. When I wear revealing clothing, I feel sexy and in control
- 8. I feel empowered when I look beautiful

## Appendix L

State-Trait anxiety inventory (Spielberger, 2010). Instructions: A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you *generally* feel). There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

- 1. I feel pleasant
  - a. Almost never
  - b. Sometimes
  - c. Often
  - d. Almost always
- 2. I feel nervous and restless
- 3. I feel satisfied with myself
- 4. I wish I could be as happy as other people seem to be
- 5. I feel like a failure
- 6. I feel rested
- 7. I am "calm, cool, and collected"
- 8. I feel that difficulties are piling up so that I cannot overcome them
- 9. I worry too much over something that doesn't really matter
- 10. I am happy
- 11. I have disturbing thoughts
- 12. I lack self confidence
- 13. I feel secure
- 14. I make decisions easily
- 15. I feel inadequate
- 16. I am content
- 17. Some unimportant thought runs through my mind and bothers me
- 18. I take disappointments so keenly that I can't put them out of my mind
- 19. I am a steady person
- 20. I get in a state of tension or turmoil as I think over my recent concerns and interest

#### Appendix M

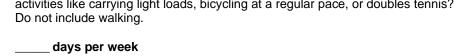
## INTERNATIONAL PHYSICAL ACTIVITY QUESTIONNAIRE

We are interested in finding out about the kinds of physical activities that people do as part of their everyday lives. The questions will ask you about the time you spent being physically active in the last 7 days. Please answer each question even if you do not consider yourself to be an active person. Please think about the activities you do at work, as part of your house and yard work, to get from place to place, and in your spare time for recreation, exercise or sport.

Think about all the vigorous activities that you did in the last 7 days. Vigorous physical activities refer to activities that take hard physical effort and make you breathe much harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.

1. During the last 7 days, on how many days did you do vigorous physical activities like heavy lifting, digging, aerobics, or fast bicycling?

	days per week
	No vigorous physical activities
2.	How much time did you usually spend doing <b>vigorous</b> physical activities on one of those days?
	hours per day
	minutes per day
	Don't know/Not sure
activiti some	about all the <b>moderate</b> activities that you did in the <b>last 7 days</b> . <b>Moderate</b> ies refer to activities that take moderate physical effort and make you breathe what harder than normal. Think only about those physical activities that you did least 10 minutes at a time.
3.	During the <b>last 7 days</b> , on how many days did you do <b>moderate</b> physical



## Appendix N

Assessing sex worker status.

1.) Do you currently participate, or have you ever participated, in sex work (e.g., stripping)? Please keep in mind you can skip this question if you prefer not to answer or find it too personal.

a) Yes

b) No

c) Other \_\_\_\_