

A Systematic Review of the Relationship Between Trait Self-Objectification and Personality Traits

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### **Abstract**

People who internalize an observer's perspective of their bodies are understood to experience 'self-objectification', a process which is associated with increased risk of poor body image, depression, and eating disorders. The aim of this paper is to systematically review the literature which has explored the relationship between trait self-objectification and personality traits. Five databases were searched and included for review if they: (a) used quantitative methodologies; (b) were published before March, 2018, inclusive; (c) were published in a peer-reviewed journal, and; (d) were available in English language. The search yielded a total of 2,636 unique articles: 16 studies within 15 articles met all inclusion criteria. The results were collated using narrative synthesis. Self-objectification was most consistently and positively associated with neuroticism, perfectionism, and narcissism across multiple studies. Insufficient research was available to draw conclusions regarding the relationship between self-objectification and other personality traits, and sex moderation effects were indeterminate. Clinical applications and theoretical implications are discussed.

## A Systematic Review of the Relationship Between Trait Self-Objectification and Personality Traits

Objectification is a psychological process whereby people in highly sexualised societies are reduced to physical objects that exist for the use and pleasure of others (Fredrickson & Roberts, 1997). Objectification theory posits that, due to the experience of being objectified by others, individuals also learn to place emphasis on their own physical appearances in order to appeal to others and influence how they are treated. As individuals internalize an observer's perspective, they experience *self*-objectification, and thus learn to treat their own bodies as objects. Self-objectification is associated with several detrimental outcomes, including depression, anxiety, body image concerns, and disordered eating (Fredrickson & Roberts, 1997; Jones & Griffiths, 2015). Although originally described in relation to women, there is evidence indicating that these processes and outcomes also occur for both women and men (Oehlhof, Musher-Eizenman, Neufeld, & Hauser, 2009).

Given the prevalence of objectification and self-objectification processes (e.g., Holland, Koval, Stratemeyer, Thomson, & Haslam, 2016), it is important to identify the factors which influence the development of clinical outcomes such as disordered eating. Individual differences, such as personality, often influence the relationships between cognitions and behavioural outcomes, and contribute towards understandings of human behaviour (Paunonen, 2003; Paunonen & Ashton, 2001). Personality is characterised by stable patterns of thoughts, emotions, and behaviours which differ between individuals (Cattell, Eber, & Tatsuoka, 1970; Costa & McCrae, 2008; Eysenck, 1950). Personality traits have been demonstrated to predict behaviour in many contexts including risky driving (Ulleberg & Rundmo, 2003), voting patterns (Barbaranelli, Caprara, Vecchione, & Fraley, 2007), and academic performance (Poropat, 2014). The literature exploring the role of personality in objectification processes (and their outcomes) is limited, but growing. Hence, this review aims to systematically synthesise the literature in this area.

### **Self-Objectification and Objectification-Relevant Outcomes**

Self-objectification can be conceptualised as either *state* or *trait* based (Calogero, 2011; Fredrickson & Roberts, 1997), and the differences in how they are conceptualised allow for

differential predictions of behaviour. State self-objectification is understood to be a temporary experience in which a person views their body from an observer's stance, triggered by environmental cues. The effects of state self-objectification are typically explored by placing participants in an experimentally induced objectifying condition (e.g., wearing a swimsuit) and comparing responses to a baseline or control condition (e.g., wearing full clothing). State self-objectification has been associated with an increase in short-term negative consequences, including immediate and lingering thoughts related to the body (Quinn, Kallen, & Cathey, 2006), increased body dissatisfaction (Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998; Harper & Tiggemann, 2008), restrained eating (Fredrickson et al., 1998), poor performance on cognitive and academic tasks (Fredrickson et al., 1998; Quinn, Kallen, Twenge, & Fredrickson, 2006), poor athletic performance (Fredrickson & Harrison, 2005), and negative affect (Harper & Tiggemann, 2008; Roberts & Gettman, 2004). These effects appear to be more pronounced in women relative to men (Fredrickson et al., 1998; Oehlhof et al., 2009), and stronger in individuals with low self-esteem (Thogersen-Ntoumani, Ntoumanis, Cumming, Bartholomew, & Pearce, 2011).

To contrast, trait-based self-objectification is the consistent tendency to self-objectify. Thus, rather than being experimentally induced, it is typically measured by self-report. Trait self-objectification is associated with a number of negative outcomes, again particularly when self-esteem is low (Breines, Crocker, & Garcia, 2008). Research has identified associations between trait self-objectification and depression (Jones & Griffiths, 2015), decreased personal wellbeing (Breines et al., 2008), decreased sexual self-esteem (Calogero & Thompson, 2009), and fewer safe sex behaviours (Anderson, Holland, Koc, & Haslam, 2017). Other well-established correlates of trait self-objectification include negative body image (Aubrey, 2007; Calogero & Thompson, 2009; Greenleaf & McGreer, 2006), reduced awareness of bodily functions like hunger and satiety (Ainley & Tsakiris, 2013; Myers & Crowther, 2008), and an over-evaluation of physical appearance (Calogero & Thompson, 2009; Greenleaf & McGreer, 2006; Tiggemann & Kuring, 2004). Due to these factors, trait self-objectification is associated with the development of eating disorders (Calogero, Davis, & Thompson, 2005). In fact, several eating disorder treatment protocols include components aimed to

decrease self-objectifying cognitions and behaviours. For example, enhanced cognitive behaviour therapy (CBT-E) involves a module aimed to reduce the importance of shape and weight in self-evaluation (Fairburn, 2009). Trait self-objectification is important to understand due to these clinically relevant psychological outcomes.

### **Personality Traits and Psychological Outcomes**

It is important to understand how personality might relate to self-objectification. Due to its temporary nature, state self-objectification is unlikely to be related to personality in a meaningful way. However, as a type of individual difference, trait self-objectification is likely to be significantly associated with enduring personality traits.<sup>1</sup> Personality traits have been associated with a number of clinical outcomes, with the majority of research focusing on the Five Factor Model (FFM; Costa & McCrae, 2008). For example, neuroticism has been linked with increased vulnerability for the development of mental disorders, including anxiety, depression, psychosis, and substance abuse (Jeronimus, Kotov, Riese, & Ormel, 2016; Kotov, Gamez, Schmidt, & Watson, 2010; Ormel et al., 2013). Individuals high in neuroticism tend to be more reactive to stress and social cues, and more prone to anxiety (Costa & McCrae, 2008). Meta-analytic evidence also supports the link between lower levels of extraversion and the diagnoses of depression, anxiety, and substance use disorders (Kotov et al., 2010). Personality traits from outside the FFM have also been linked to clinical outcomes. For example, perfectionism has been linked with depression, anxiety disorders, and obsessive-compulsive disorder (Limburg, Watson, Hagger, & Egan, 2016), and narcissism has been associated with impulsivity, interpersonal conflict, and perfectionistic expectations (Swami, Cass, Waseem, & Furham, 2015; Vazire & Funder, 2006).

Of particular significance to this paper, personality traits have been associated with negative body image – a clinically relevant correlate of self-objectification. A recent systematic review found that negative body image is correlated with lower levels of extraversion and higher levels of neuroticism (Allen & Walter, 2016). Mixed findings were observed for the other FFM traits, which

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<sup>1</sup> Note that, unless specified, from this point ‘self-objectification’ refers to trait self-objectification (as opposed to state self-objectification)

generally appear to be negatively associated with, or unrelated to, body image (also see Allen, Vella, Swann, & Laborde, 2018; Sutin & Terracciano, 2016). Personality traits have also been associated with the development of eating disorders, a critical clinical outcome of negative body image.

Research has identified links between eating disorder symptomology and a range of traits including impulsivity (Schag, Schönleber, Teufel, Zipfel, & Giel, 2013; Waxman, 2009), narcissism (Cassin & von Ranson, 2005), and perfectionism (Franco-Paredes, Mancilla-Díaz, Vázquez-Arévalo, López-Aguilar, & Álvarez-Rayón, 2005; Limburg et al., 2016).

It is likely that several personality traits influence the development and maintenance of self-objectification. It is also possible that self-objectification influences the development of personality. No studies have systematically reviewed this relationship. Thus, the objective of this paper is to systematically review and synthesise the literature which has quantitatively explored the relationship between trait self-objectification and key personality traits.

### **Methods**

This review was conducted using Cochrane methodologies as guidelines (Higgins & Green, 2011). The methods and results are presented in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement where appropriate, with sections excluded if irrelevant (Moher et al., 2015). A protocol was developed prior to study commencement by both authors to guide the search and data extraction. Information from this unpublished protocol is incorporated below.

### **Eligibility Criteria**

Studies included in the systematic literature review were required to: (a) quantitatively examine the relationship between self-objectification and at least one personality trait using standard and valid measures (see below); (b) be published before March, 2018, inclusive, (c) be published in a peer-reviewed academic journal; and (d) be available in English. Studies involving participants with personality disorders were considered ineligible for the review in order to focus the review on ‘sub-clinical’ personality traits (i.e., personality traits that are not considered severe enough to cause significant impairment), and thus increase the generalisability of findings. Personality ‘types’ were

also excluded as these have a different theoretical basis to trait theories, and trait theories offer a more flexible approach to understanding personality (Quenk, 1993).

Studies were required to include at least one standardised, validated measure of self-objectification. Eligibility for inclusion was based on a review of trait self-objectification instruments by Calogero (2011). Studies included in this review were the Self-Objectification Questionnaire (SOQ; Noll & Fredrickson, 1998), the Body Surveillance subscale of the Objectified Body Consciousness Scale (OBCS; McKinley & Hyde, 1996), and the Appearance Orientation subscale of the Multidimensional Body-Self Relations Questionnaire (MBSRQ; Cash, 2015). Although these scales have been developed to assess the same theoretical construct, there is evidence to suggest that these scales measure overlapping but somewhat distinct concepts of self-objectification, body surveillance and appearance orientation (Calogero, 2011). This issue of construct validity limits the interpretability of findings, but allows this small body of literature to be synthesised.

Studies were also required to include at least one measure of a personality trait with published psychometric properties. A list of the 28 personality traits considered in the systematic review, and their definitions, can be found with the online supplements<sup>2</sup>. Personality traits considered for the review were understood as fitting within the following trait theories of personality: FFM, Eysenck's Personality Theory, Cattell's Trait Theory, and the Dark Tetrad (Cattell et al., 1970; Costa & McCrae, 2008; Eysenck, 1950; Mededović & Petrović, 2015). Using an inductive process, additional personality traits that did not fit neatly within one of these theories were identified during the systematic search, and thus the traits of resilience, impulsivity, and assertiveness were also included for consideration.

### **Information Sources and Search Strategy**

The following databases were searched in February, 2017, and later updated in March, 2018: PsycINFO, Medline Complete, Web of Science, Scopus, and the Psychology and Behavioural

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<sup>2</sup> The online supplements to this article can be found on the Open Science Framework at [http://\\*\\*\\*\\*\\*/](http://*****/). This URL holds the data extraction table, the full search strategy used in this paper, and a full description of the personality traits (and theorists) used in this systematic review.

Sciences Collection. The search strategy was tested and refined prior to the formal search. Briefly, the strategy involved combining the concept of *self-objectification* with the concept of *personality*. More specifically, a search string or subject term related to objectification was combined with a personality-related search string or subject term, using Boolean operators. No limits were added to the database searches. The full search strategy for each database is available in an online supplement. An example search (Medline) was:

(“self-objectification” OR “self objectification” OR “objectification theory” OR “body as object” OR DE “Objectification”) AND (personalit\* OR trait\* OR “big five” OR “five factor” OR Eysenck OR Cattell OR “dark triad” OR “dark tetrad” OR narcissis\* OR sadis\* OR Machiavellian\* OR psychopath\* OR DE “Personality” OR DE “Personality Traits” OR DE “Personality Correlates” OR DE “Five Factor Personality Model”).

### **Study Selection**

After completion of the searches, all citations were downloaded from the databases to a single EndNote library. After both automated and manual removal of duplicates, citations were screened by two independent researchers for eligibility. Screening was first conducted by examining titles and abstracts (discrepancies were all moved through to the full-text screening phase); studies which passed this stage were downloaded and full text articles were examined in accordance with inclusion criteria.

### **Data Collection Process and Data Items**

Studies which met all inclusion criteria were reviewed by the first author, and the findings were then double-extracted by both authors using a custom Microsoft Excel spreadsheet designed by both authors (available in the online supplements). Information extracted included year of the study, sample size, population characteristics (ethnicity, age, gender, etc.), procedure, statistical analyses, and main findings for each included study – any discrepancies in data extraction with resolved through discussion by the authors. Results were synthesised using a narrative approach (Ryan, 2013). A meta-analysis was not conducted due to concerns over study heterogeneity, several different



conceptualisations of self-objectification, and the presence of confounding factors (Borenstein, Hedges, Higgins, & Rothstein, 2009; Egger, Smith, & Schneider, 2008).

### Study Quality

Studies were critically appraised using the AXIS tool, a quality assessment tool for observational cross-sectional studies (Downes, Brennan, Williams & Dean, 2016). The tool comprises 20 items which are classified as *yes*, *no*, or *don't know* to assess study quality and reporting transparency (with *yes* classified as 1, and *no* or *don't know* classified as 0); each study is then assigned a quality score out of 20. It is worth noting that the tool allows each study to be assigned a score, but the interpretation of these scores are subjective. The quality score for each study identified by this systematic review is presented in Table 1, and any additional comments on study quality are presented throughout results as required.

## Results

### Study Selection

The initial search yielded a total of 2,357 unique articles. After abstract screening, 225 articles (9.54%) were deemed eligible for full-text review. Thirteen studies within twelve articles met inclusion criteria. The updated search yielded a total of 70 unique articles published since February 2017 and identified a further three relevant articles, resulting in a total of 16 studies within 15 articles included in the systematic review (see Table 1). The study selection process is illustrated in Figure 1.

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### Study Characteristics

All 15 articles ( $N_{\text{studies}} = 16$ ) were published in or after 2001 and used cross-sectional methodology to examine variables of interest. Ten studies used only female participants (Calogero & Watson, 2009, Study 2; Davis, Dionne, & Shuster, 2001; Frederick, Kelly, Latner, Sandhu, & Tsong, 2016; Holland et al., 2017; Kvaalem, von Soest, Roald, & Skolleborg, 2006; Lindner & Tantleff-Dunn,

2017; Lipowska & Lipowski, 2015; Miner-Rubino, Twenge, & Fredrickson, 2002; Szymanski & Feltman, 2014; Tylka, 2004), two used only male participants (Davis, Karvinen, & McCreary, 2005; Fox & Rooney, 2015), and four involved both male and female participants (Allen & Celestino, 2017; Calogero & Watson, 2009, Study 1; Turner et al., 2015; Visser, Sultani, Choma, & Pozzebon, 2014). Ten studies used tertiary student samples (Calogero & Watson, 2009, Studies 1 & 2; Davis et al., 2001; Davis et al., 2005; Frederick et al., 2016; Lindner & Tantleff-Dunn, 2017; Miner-Rubino et al., 2002; Szymanski & Feltman, 2014; Tylka, 2004; Visser et al., 2014). The results of the data extracted from these articles, along with the findings of the quality assessment, have been synthesised below. There was minimal variation in the quality of the literature reviewed with 15 of the studies being of medium quality and one study of high quality; study characteristics are summarised in Table 1.

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### **Five Factor Model**

The most frequently researched personality trait in the reviewed literature was trait neuroticism ( $k = 10$ ). A strong pattern of findings emerged; 9/10 studies reported significant, positive associations between neuroticism and self-objectification (Allen & Celestino, 2017; Calogero & Watson, 2009, Studies 1 & 2; Davis et al., 2001; Davis et al., 2005; Kvalem et al., 2006; Miner-Rubino et al., 2002; Tylka, 2004; Visser et al., 2014). Five studies examined the other FFM traits openness to experience, conscientiousness, extraversion, and agreeableness (Allen & Celestino, 2017; Holland et al., 2017; Kvalem et al., 2006; Miner-Rubino et al., 2002; Visser et al., 2014). Of these studies, a single but high-quality study (Kvalem et al., 2006) identified an association between self-objectification and extraversion, and another study identified some relationships in multivariate analyses (specifically, the neuroticism-mental health association was mediated by appearance evaluation and body image discrepancy; Allen & Celestino, 2017), but no relationships emerged related to the other traits.

Seven neuroticism studies used female only samples. Two of these studies reported significant, positive zero-order correlations between neuroticism and body surveillance, with both studies utilising American/Canadian student samples (Tylka, 2004; Visser et al., 2014). One Australian study found no significant relation in zero-order correlations, although this study was limited by small sample size (Holland et al., 2017). A further two of these studies did not find significant associations in zero-order correlations, but did report that neuroticism was a significant predictor of their self-objectification measure in multiple regression analyses (Calogero & Watson, 2009, Study 2; Davis et al., 2001). In their first multiple regression, Davis et al. (2001) found that neuroticism was uniquely associated with appearance orientation when controlling for narcissism, facial attractiveness, and perfectionism among American undergraduate women. In a second regression, there was a main effect for neuroticism, controlling for narcissism, body mass index (BMI), and an interaction term (facial attractiveness x self-oriented perfectionism). Calogero (2011; Study 2) found that neuroticism was significantly associated with body surveillance when controlling for impression management among Caucasian women. In a high quality Norwegian study, Kvalem et al. (2006) found that neuroticism was significantly and positively correlated with appearance orientation in zero-order correlations among women. Neuroticism was also a significant predictor of appearance orientation in a multiple regression after controlling for extraversion, BMI, and experiencing comments about one's appearance. Finally, Miner-Rubino et al. (2002) found a significant, positive association between neuroticism and a self-objectification composite variable (i.e., the combination of the SOQ and body surveillance subscale of the OBCS) in zero-order correlations in American undergraduate women. However, note that this study scored lowest for quality among all studies in this review. Two neuroticism studies involved male samples. These studies revealed that, in samples of men, neuroticism was significantly and positively correlated with appearance orientation in American men (Davis et al., 2005) and body surveillance in male Canadian students (Visser et al., 2014). Finally, another two neuroticism studies involved mixed-gender samples. In a study of American undergraduates, Calogero and Watson (2009, Study 1) reported that neuroticism was significantly and positively correlated with body surveillance in zero-order correlations, and also in a hierarchical regression (controlling for gender and impression

management), and Allen and colleagues (2017) reported that neuroticism was significantly and positively correlated with appearance orientation in zero-order correlations, and also in a hierarchical regression (controlling for gender, age, and BMI) among Australians.

Studies exploring the relationship between self-objectification and the remaining FFM traits produced less consistent findings. Five studies examined these relationships in female only samples. First, Holland and colleagues (2017) reported that none of the FFM traits correlated with self-objectification scores in an Australian sample, although it is worth noting again that their sample size was relatively small. Second, Kvalem and colleagues (2006) reported that extraversion, agreeableness, conscientiousness, and openness to experience were not significantly associated with appearance orientation in a sample of Norwegian women. Among these traits, extraversion was the only significant predictor of appearance orientation in a multiple regression after controlling for BMI and negative appearance-related comments. Third, Miner-Rubino and colleagues (2002) reported that their self-objectification composite was significantly and negatively correlated with agreeableness and openness to experience, but not extraversion or conscientiousness in a sample of American undergraduate women. Fourth, Visser and colleagues (2014) found that body surveillance was not significantly correlated with openness, conscientiousness, extraversion, or agreeableness in a sample of Canadian undergraduate women. This study also involved a male sample, and similarly found no significant relationships for these traits. Finally, Allen and colleagues (2017) explored the FFM traits in a mixed-gender sample and found that openness, conscientiousness, extraversion, and agreeableness did not correlate with appearance orientation, although openness and conscientiousness predicted appearance orientation when controlling for age, gender and BMI. When exploring for gender interactions, these researchers found that agreeableness had a negative association with appearance orientation among men, but not among women.

### **Narcissism**

Five studies examined the link between narcissism and self-objectification, with three of these studies finding significant and positive associations. Three of these narcissism studies used female only samples. In the first of these studies, Lipowska and Lipowski (2015) examined young adult

Polish women representing various body sizes as measured by BMI. Strength of observed relationships differed by BMI, although women with all body types demonstrated a significant, positive association between appearance orientation and the narcissistic subtype 'vanity'. Findings for the other narcissistic subtypes (e.g., self-sufficiency) were inconsistent. Davis et al. (2001) also examined appearance orientation and narcissism in a study of young Canadian women. Using a general narcissism measure, they found that narcissism was significantly and positively correlated with appearance orientation in zero-order correlations. It also predicted appearance orientation in a multiple regression after controlling for neuroticism, perfectionism, and facial attractiveness. In contrast, Linder and Tantleff-Dunn (2017) found that narcissism did not significantly correlate with either SOQ or Body Surveillance scores, although it is worth highlighting that their measure of narcissism (Narcissistic Personality Inventory-16) had levels of internal consistency that are lower than typically considered acceptable (i.e., they reported  $\alpha = .67$ , whereas recommendations are that only measures with  $\alpha > .70$  be used; Cronbach 1990).

Two studies used male only samples to explore the relationship between narcissism and self-objectification with contrasting results. Davis et al. (2005) found that, in zero-order correlations, a narcissism total score was not significantly correlated with appearance orientation in a sample of young Canadian men. In a more recent study, Fox and Rooney (2015) recruited a nationally representative sample of US men; they found significant zero-order correlations between self-objectification and a general measure of narcissism.

### **Perfectionism**

Three studies examined perfectionism (Davis et al., 2001; Davis et al., 2005; Frederick et al., 2016) with each reporting some significant associations with self-objectification. All studies used various subscales of the Multidimensional Perfectionism Scale, and two of these studies used female only samples. The first of these (Davis et al., 2001) found that appearance orientation was not significantly correlated with the self-oriented perfectionism, other-oriented perfectionism, or socially-prescribed perfectionism subscales in zero-order correlations among Canadian Caucasian women. In a multiple regression, which included interaction terms for ratings of participants' facial attractiveness,

there was a significant interaction between facial attractiveness and self-oriented perfectionism scores (which relates to self-imposed expectations). This interaction significantly and uniquely predicted appearance orientation. There was also a significant main effect of self-oriented perfectionism in this model. The second study (Frederick et al., 2016) found that body surveillance significantly and positively correlated with two perfectionism subscales, concern over mistakes and need for approval, for their full sample of Caucasian and Asian women. Similar effect sizes were observed for each ethnic group. However, body surveillance correlated with parental criticisms, parental expectations, and personal standards for Caucasian women only. The final study (Davis et al., 2005), which examined young Canadian men, found that appearance orientation was significantly and positively correlated with a perfectionism total score.

### **Other Traits**

Other traits studied were resilience, impulsivity, assertiveness and dominance. Szymanski and Feltman (2014) found a significant and negative zero-order correlation between body surveillance and resilience in a sample of American female undergraduates. Resilience was a significant correlate of body surveillance in a multiple regression, controlling for self-objectifying experiences. Another study examined the relationship between body surveillance and impulsivity in a mostly female international sample of people with a history of non-suicidal self-injury (Turner et al., 2015). In zero-order correlations, body surveillance was not significantly correlated with impulsivity. Finally, in their study of female undergraduates, Miner-Rubino et al. (2002) found that their self-objectification composite variable was not significantly associated with either assertiveness or dominance; however, this study had the lowest quality rating. Fox and Rooney (2015) also examined psychopathy and Machiavellianism in Canadian men. The study found significant, positive zero-order correlations between self-objectification and Machiavellianism, but not psychopathy.

### **Discussion**

This paper aimed to systematically review all studies which have examined the relationship between trait self-objectification and key personality traits. The systematic search identified 16 relevant studies within 15 articles which examined this relationship across a range of personality

traits. These studies were typically of a medium quality (with all but one study scoring between 9 and 13 on the AXIS tool - the remaining study scored 17). There was minimal variation in study quality, which suggests that there were no overly poor studies, but also no studies of exceptional quality. Thus, the evidence of these 15 studies should be interpreted with equal weighting.

### **Summary of Evidence**

Across a number of populations and methodologies, fairly consistent evidence was found indicating that self-objectification is associated with higher levels of neuroticism, plus higher levels of certain sub-types of perfectionism and narcissism. Less robust evidence identified relationships between self-objectification and lower levels of resilience, and higher levels of Machiavellianism. However, due to different operationalisations of self-objectification and different populations within the studies, it is difficult to draw strong conclusions from this body of evidence.

The most consistent evidence linking personality and self-objectification was reported for neuroticism. This can be explained through evidence that individuals with higher trait neuroticism are generally more prone to psychopathology (Jeronimus et al., 2016; Kotov et al., 2010; Ormel et al., 2013). Thus, they may be prone to internalise outsiders' views of their bodies and subsequently place a high degree of emphasis on their physical appearance. Interestingly, two of the studies in this review (Calogero & Watson, 2009, Study 2; Davis et al., 2001) found that neuroticism was significantly associated with body surveillance only in multivariable analyses. This suggests that, in some cases, neuroticism may be masked by extraneous variables (e.g., impression management, discrepancies between self and the ideal, facial attractiveness, etc.) resulting in a suppression effect. This highlights the importance of including multivariable analyses in this area of research.

Fairly consistent evidence was provided for perfectionism, although only a small number of studies examined this trait ( $k = 3$ ). These studies indicated that certain subtypes of perfectionism may be more consistently associated with self-objectification than others. In particular, high personal standards, concern over one's mistakes, and a desire for approval from others appear to be more relevant than interpersonal forms of perfectionism (i.e., perceiving that others are imposing high standards upon the individual). An interaction between self-oriented perfectionism and facial

attractiveness was also observed in one study (Davis et al., 2001), suggesting that women with attractive faces self-objectify more frequently than those who are less attractive, but only for those women with low levels of self-oriented perfectionism. The authors postulated that this may be because women who are perfectionistic set high standards across many areas in their lives, so those who are attractive can place less priority on their appearance and prioritise other areas of their lives (Davis et al., 2001). Perfectionism is understood to be adaptive in milder forms (such as promoting organisation and neatness), but can be maladaptive in more extreme cases and has been argued to share a close relationship with neuroticism (Smith, Sherry, Mackinnon, Stewart, & Antony, 2014; Smith, Saklofske, & Nordstokke, 2014). It is possible that, in this context, the more maladaptive styles of perfectionism drive individuals to be increasingly self-critical (Wielkiewicz & Wonderlich, 2006), which in turn leads to desiring a ‘perfect’ physical ideal. Thereby, this may result in an individual with a maladaptive perfectionistic drive to engage in self-objectification.

Evidence indicates that self-objectification is sometimes associated with higher levels of narcissism, with three of the five studies finding significant associations. The two studies that did not find the association might have been impacted by methodological problems. First, Davis and colleagues (2005) used a small convenience sample, so its results may not be generalizable. Second, Linder and Tantleff-Dunn (2017) reported low internal consistency estimates in their measure of narcissism, limiting the validity of their findings.

It is worth noting that all the studies identified in this review examined ‘grandiose’ narcissism. People with high levels of grandiose narcissism tend to compare themselves to others, attempt to reach high standards to gain social approval, and inhibit emotions related to feeling inferior to others (Swami et al., 2015). In one study, narcissistic subtypes ‘vanity’ and ‘need for admiration’ were most closely related to self-objectification (Lipowska & Lipowski, 2015). It is tempting to assume that individuals with high levels of sub-clinical narcissism, particularly vanity, are protected from the negative consequences of self-objectification such as poor body image. Trait narcissism is associated with being beneficial for psychological health, as long as the individual also has high levels of self-esteem (Sedikides, Rudich, Gregg, Kumashiro, & Rusbult, 2004). However, excessive efforts



to monitor and achieve an ideal appearance are likely to be maladaptive in the long-term (Davis et al., 2001), and very high levels of narcissism are associated with psychopathology (Samuel & Widiger, 2008). Interestingly, no studies examined ‘vulnerable narcissism’, a subtype associated with more defensiveness, insecurity and shame than grandiose narcissism (Cain, Pincus, & Ansell, 2008; Maples, Lamkin, & Miller, 2014). Forthcoming research by the authors has identified that vulnerable narcissism, but not grandiose narcissism, is associated with higher levels of self-objectification among young women (\*\*BLINDED FOR PEER REVIEW\*\*).

### **Implications**

The results of this review have practical implications for key populations. First, clinicians should be aware that clients presenting with high levels of neurotic, perfectionistic, and/or narcissistic traits may also be experiencing high levels of self-objectification. For these individuals, it may be worth discussing self-objectification, even if this is not a key reason why the individual has presented to a psychological service. Second, clinicians working in specialist eating disorder settings should be aware that their clients may display high levels of these personality traits. Some treatment protocols offer modules which aim to reduce detrimental effects of personality traits (e.g. CBT-E offers a module addressing clinical perfectionism; Fairburn, 2009). Exploring these traits may help address the wider context in which body image concerns and disordered eating behaviours develop.

In addition, these results have a number of implications for how we understand and advance existing theories of self-objectification. For example, the broader literature has typically focussed on understanding the consequences of objectifying the self, and has only relatively recently begun to widely explore the causes. This review contributes a synthesis of evidence that contains relatively consistent evidence that at least some personality traits (typically considered life-long and relatively inflexible) are related to self-objectification. This calls into question the original theoretical tenets of the internalisation of men’s gaze as the origin of self-objectification, unless of course certain personality traits make an individual more likely to engage in this internalization process.

To extend these theoretical contributions of this literature, future research could consider lesser researched populations in this field – including a more in-depth exploration of these processes in men, research exploring if these same personality factors facilitate other-objectification, and if these personality factors exist cross-culturally. It is necessary to continue to refine our understandings of the limits and utility of theories of objectification if we are to understand the phenomenon and the reduce its prevalence and the severity of related consequences.

### **Limitations of the Literature**

Only a small number of studies were available for synthesis. Several limitations were observed when conducting the quality assessment (Table 1). Quality scores ranged from 9-17 out of a possible 20, with studies limited by both methodology and reporting transparency. Populations studied limit the generalisability of the findings. Only two reported efforts to ensure their samples were nationally representative (Fox & Rooney, 2015; Kvaalem et al., 2006). The majority of studies ( $n = 10$ ) involved convenience samples comprised entirely of university students. Further, most studies were from the USA or Canada, and comprised mostly of Caucasian female participants. Ethnicity was often described, but it was only considered a variable of interest in one study (as seen in Frederick et al., 2016). Although objectification theory was designed to apply primarily to Western culture (Fredrickson & Roberts, 1997), there is a need to identify and explore these processes in ethnic minorities and in non-Western countries. All studies were cross-sectional, and thus no inferences of causality can be made.

The majority of the studies in this systematic review used female samples, with a minority studying samples comprising of men. Only one study (Visser et al., 2014) specifically compared male and female participants within the study, finding similar relationships between personality traits and self-objectification. With so few studies, it is not feasible to meaningfully reflect on gender differences in this body of research. As objectification theory was originally conceptualised to illustrate objectification processes for women (Fredrickson & Roberts, 1997), and self-objectification is more common in women relative to men (Oehlhof et al., 2009), it is unlikely that the relationships between self-objectification and personality traits are the same for both men and women.

Further, some caution is required when interpreting the results of individual studies. Studies used different conceptualisations of self-objectification which may not measure the same construct (Calogero, 2011). One study provided a composite measure of self-objectification after finding the SOQ and body surveillance subscale of the OBCS to be highly correlated (Miner-Rubino et al., 2002); this is not a standard procedure and findings should be interpreted with caution. Further, the psychometric properties of the Narcissistic Personality Inventory (Raskin & Hall, 1979) and the Dirty Dozen (Jonason & Webster, 2010) have been debated, and these scales are still being debated as valid measures of the Dark Triad traits (Maples et al., 2014; Miller & Campbell, 2011; Miller et al., 2012). As mentioned above, one study used results from a narcissism measure which were not internally consistent (Lindner & Tantleff-Dunn, 2017).

### **Limitations of the Systematic Review**

We would like to acknowledge several limitations of this review. First, the scope of the review was narrowed to trait self-objectification and 28 personality traits of interest to simplify data synthesis and extraction. Hence, this review is unable to provide information regarding state self-objectification, personality disorders, or other traits. We are unable to interpret the size of effects without conducting a meta-analysis. Finally, due to the different operationalisations of self-objectification across the studies, it is difficult to interpret results and to make judgements regarding consistency of results. More research is needed to understand the relationships between personality traits and the overlapping but distinct concepts of self-objectification, body surveillance, and appearance orientation. Emerging measures such as the Self-Objectification Beliefs and Behaviors Scale (Lindner & Tantleff-Dunn, 2017), which incorporates different operationalisations of self-objectification, may be beneficial future research in this field.

### **Conclusions**

This is the first systematic review to examine the relationship between self-objectification and personality. The narrative synthesis of results indicates that people who self-objectify tend to exhibit higher levels of neuroticism, perfectionism, and narcissism. These findings suggest that such personality traits may be worthwhile assessing and addressing in clinical practice, and contribute to

theoretical discussions of risk-factors associated with self-objectification, and thus objectification-relevant outcomes. More research, including study replication, is needed for all personality traits included in this review to facilitate a quantitative synthesis of results. Research is also needed to understand these relationships in men and non-student samples. Further, research examining the potential mediating role of self-esteem would be beneficial.

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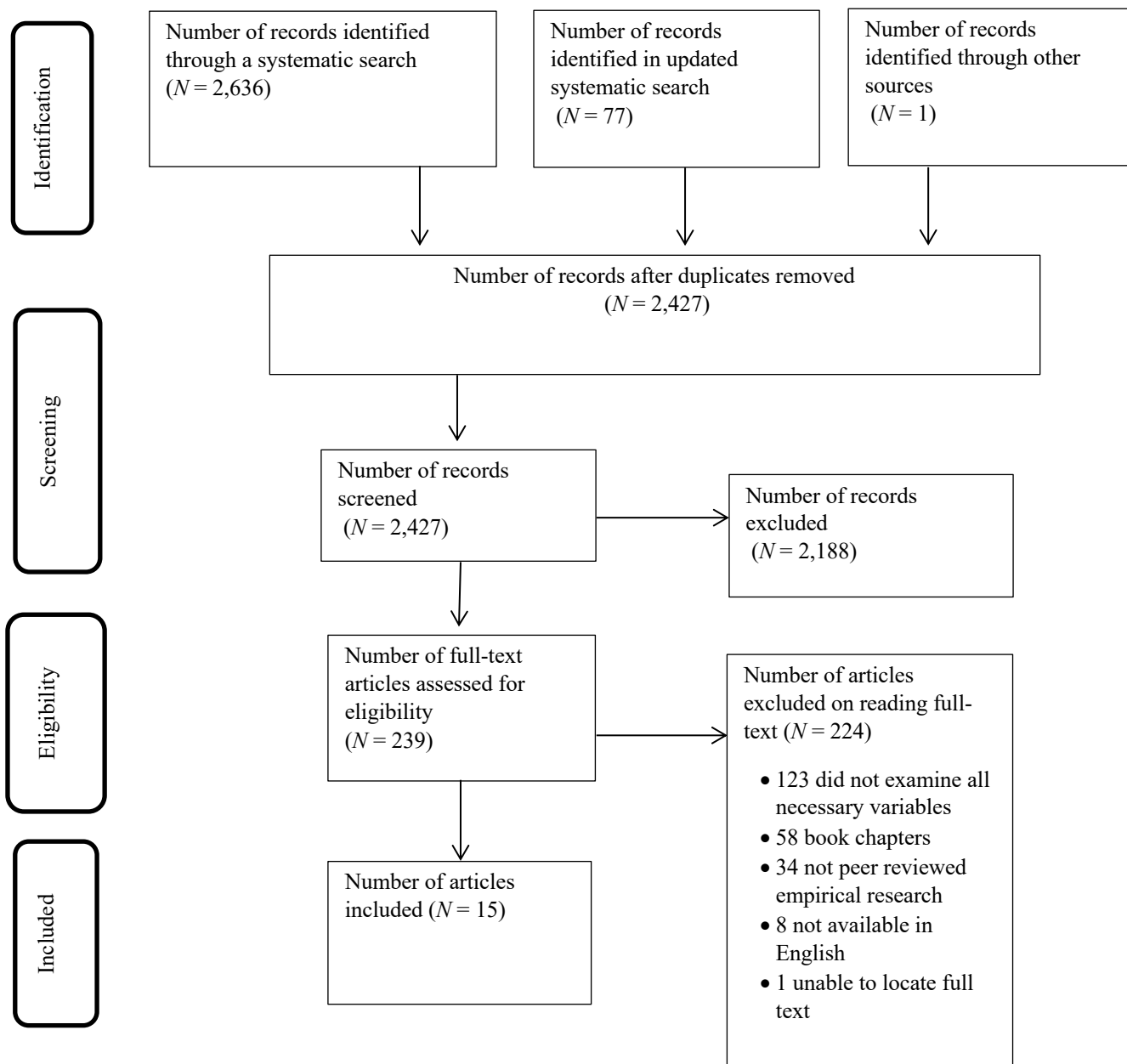


Figure 1. Flowchart of study selection

Table 1

*Characteristics of Studies Included in the Systematic Review.*

First author, year	Country	N	Gender composition	Age (years)	Population	SO measure	Personality measure	Univariable findings	Multivariable findings	Quality rating (20)
Allen, 2017	Australia	451	73.4% female, 26.8% male	M = 21.88, SD = 7.65	University students and community	MBSRQ	Big Five Inventory	Appearance orientation was significantly and positive correlated with neuroticism ( $r = .30, p < .001$ ), but not with extraversion, openness to experience, agreeableness or conscientiousness ( $r_s = -.02, .08, -.05, .04$ respectively; all $p_s > .05$ ).	Model 1: Neuroticism ( $\beta = .32, p < .001$ ), openness ( $\beta = .13, p < .01$ ) and conscientiousness ( $\beta = .13, p < .01$ ) predicted appearance orientation, but extraversion and agreeableness did not ( $\beta = .04, -.04$ respectively, $p > .05$ ) when controlling for age, gender and BMI. In final step of model, with interaction terms, there was a significant interaction gender x agreeableness; agreeableness had a negative association with appearance orientation among men, but not among women ( $t = -2.64, p = .009$ )	11
Calogero, 2009 (Study 1)	USA	108	50% male, 50% female	M = 18.89, SD = 1.10	University students	OBCS	NEO-PI (Neuroticism)	Body surveillance was significantly and positively correlated with neuroticism ( $r = .46, p < .01$ ).	Neuroticism was a significant predictor of body surveillance when controlling for gender and impression management ( $\beta = .38, p < .001$ ).	11
Calogero, 2009 (Study 2)	USA	221	Female only	M = 18.67, SD = 1.21	University students	OBCS/SOQ	NEO-PI (Neuroticism)	Body surveillance was not significantly correlated with neuroticism ( $r = .15, p > .05$ ).	Neuroticism was a significant predictor of body surveillance when controlling for SOQ scores and impression management ( $\beta = .23, p < .001$ ).	12
Davis, 2001	Canada	102	Female only	M = 21.46, SD = 3.49	University students	MBSRQ	Narcissistic Personality Inventory, Eysenck Personality	Appearance orientation was significantly and positively correlated with narcissism ( $r = .27, p < .01$ ), but not with neuroticism, self-	Model 1: Neuroticism ( $p = .006$ ) and narcissism ( $p = .002$ ) were both significant predictors of appearance orientation, but other	11

First author, year	Country	<i>N</i>	Gender composition	Age (years)	Population	SO measure	Personality measure	Univariable findings	Multivariable findings	Quality rating (/20)
							Questionnaire-Revised (Neuroticism), Multidimensional Perfectionism Scale	oriented perfectionism, other-oriented perfectionism or socially-prescribed perfectionism ( <i>rs</i> = .16, .05, .17 and .06 respectively; all <i>ps</i> > .05).	variables were not significant (facial attractiveness and three perfectionism subscales, all <i>ps</i> > .05). Model 2: This model included interaction terms for ratings of participants' facial attractiveness with each personality trait. The interaction between facial attractiveness and self-oriented perfectionism was a significant predictor of appearance orientation ( <i>p</i> < .001). Neuroticism ( <i>p</i> = .004), narcissism ( <i>p</i> < .001), and self-oriented perfectionism ( <i>p</i> = .002) also predicted appearance orientation in this model. This model controlled for other personality traits (all <i>ps</i> > .05) and facial attractiveness.  Note that this article did not provide $\beta$ values.	
Davis, 2005	Canada	100	Male only	<i>M</i> = 22.8, <i>SD</i> = 3.3	University students	MBSRQ	Narcissistic Personality Inventory, Eysenck Personality Questionnaire-Revised (Neuroticism), Multidimensional Perfectionism Scale	Appearance orientation was significantly and positively correlated with neuroticism ( <i>r</i> = .22, <i>p</i> < .05) and perfectionism ( <i>r</i> = .23, <i>p</i> < .05), but not narcissism ( <i>r</i> = .15, <i>p</i> > .05).	N/A	13
Fox, 2015	USA	800	Male only	<i>M</i> = 29.29,	Community (nationally	SOQ	Dirty Dozen	Self-objectification was significantly and positively correlated with narcissism	N/A	12



First author, year	Country	<i>N</i>	Gender composition	Age (years)	Population	SO measure	Personality measure	Univariable findings	Multivariable findings	Quality rating (/20)
				<i>SD</i> = 6.52	representative sample)			( $r = .25, p < .001$ ) and Machiavellianism ( $r = .10, p < .01$ ), but not psychopathy ( $r = .07, p < .05$ ).		
Frederick, 2016	USA	488	Female only	$M = 20.4, SD = 2.3$	University students	OBCS	Multidimensional Perfectionism Scale and Perfectionism Inventory	For Caucasian women, body surveillance was significantly and positively correlated with parental expectations ( $r = .14, p < .05$ ), parental criticism ( $r = .19, p < .01$ ), personal standards ( $r = .12, p < .12$ ), concern over mistakes ( $r = .28, p < .001$ ) and need for approval ( $r = .41, p < .001$ ). For Asian women, body surveillance significantly correlated with concern over mistakes ( $r = .24, p < .001$ ) and need for approval ( $r = .38, p < .001$ ) but not parental expectations ( $r = .07, p > .05$ ), parental criticism ( $r = .11, p > .05$ ), or personal standards ( $p = .13, p > .05$ ).	N/A	12
Holland, 2017	Australia	81	Female only	$M = 22.33, SD = 5.47$	University students and community	SOQ	Big Five Inventory	No significant correlations were observed between SOQ scores and extraversion, agreeableness, conscientiousness, neuroticism or openness ( $r_s = .07, -.09, -.03, .14, -.14$ respectively, $p > .05$ )	N/A	13
Kvalem, 2006	Norway	907	Female only	$M = 38.8, SD = 9.0$	Community	MBSRQ	Big Five Inventory	Appearance orientation was significantly and positively correlated with neuroticism ( $r = .13, p < .01$ ), but not with extraversion ( $r = .05$ ),	Model 1: Extraversion ( $\beta = .10, p < .01$ ) and neuroticism ( $\beta = .20, p < .001$ ) were significant predictors of appearance orientation when	17

First author, year	Country	N	Gender composition	Age (years)	Population	SO measure	Personality measure	Univariable findings	Multivariable findings	Quality rating (/20)
								agreeableness ( $r = .03$ ), conscientiousness ( $r = .03$ ), or openness to experience ( $r = .07$ ; all $ps > .01$ ).	controlling for other FFM traits (which were not significant predictors, all $ps > .05$ ), BMI, and negative comments about appearance. Model 2: An interaction between frequency of negative appearance-related comments and extraversion significantly predicted appearance orientation in a second model ( $\beta = .50, p < .01$ ). Other FFM trait x comments interaction terms were not significant in this model (all $ps > .05$ ).	
Lindner, 2017	USA	654	Female only	$M = 20.43, SD = 2.60$	University students	SOQ/OBCS	Narcissistic Personality Inventory-16	Narcissism did not significantly correlate with either SOQ or Body Surveillance scores ( $rs = -.07, -.05$ respectively, $p > .05$ ).	N/A	14
Lipowska, 2015	Poland	325	Female only	$M = 24.1, SD = 5.5$	Community; recruitment based on BMI	MBSRQ	Polish translation of Narcissistic Personality Inventory	For participants with an 'ideal BMI' (21.7-22.7), significant correlations were observed between appearance orientation and need for admiration ( $r = .25, p = .001$ ), leadership ( $r = .17, p = .027$ ), and vanity ( $r = .31, p < .001$ ), but not self-sufficiency ( $r = .07, p > .05$ ). For 'extremely slim' women (BMI < 17.5), significant correlations were observed for appearance orientation and need for admiration ( $r = .23, p = .031$ ), vanity ( $r = .42, p < .001$ ), and self-	Models were run separately for each BMI group controlling for different narcissism subtypes. Vanity was a significant predictor of appearance orientation in all BMI groups: 'ideal BMI' ( $\beta = .27, p = .005$ ), extremely slim ( $\beta = .55, p = .001$ ), and obese ( $\beta = .29, p = .035$ ). Need for admiration was a unique predictor of appearance orientation for obese women only. ( $\beta = .37, p = .039$ ). Neither leadership nor self-sufficiency were significant predictors of appearance	10

First author, year	Country	<i>N</i>	Gender composition	Age (years)	Population	SO measure	Personality measure	Univariable findings	Multivariable findings	Quality rating (/20)
								sufficiency ( $r = .23, p = .031$ ), but not leadership ( $r = .19, p > .05$ ). For 'obese' women (BMI > 30.0), appearance orientation was significantly correlated with vanity ( $r = .29, p = .015$ ), but not need for admiration ( $r = .17$ ), leadership ( $r = -.05$ ), or self-sufficiency ( $r = -.13$ , all $ps > .05$ ).	orientation in any BMI group (all $ps > .05$ ).	
Miner-Rubino, 2002	USA	98	Female only	$M = 18.6$ , $SD$ not provided	University students	SOQ / OBCS composite	Eysenck Personality Questionnaire. Personality Research Form (Dominance) Rathus Assertiveness Scale Goldberg Big Five scale.	The self-objectification composite was significantly and positively correlated with neuroticism ( $r = .42, p < .001$ ), reverse-coded emotional stability (i.e. a second measure of neuroticism, $r = .37, p < .001$ ), agreeableness ( $r = -.26, p < .05$ ), and intellect ( $r = -.23, p < .05$ ) but not extraversion ( $r = -.04$ ), surgency ( $r = -.10$ ), conscientiousness ( $r = -.02$ ), assertiveness ( $r = -.18$ ), or dominance ( $r = -.03$ ; all $ps > .05$ ).	N/A	9
Syzmanski, 2014	USA	270	Female only	$M = 18.51$ , $SD = .99$	University students	OBCS	Brief Resiliency Scale	Body surveillance was significantly and negatively correlated with resilience ( $r = -.27, p < .05$ ).	Resilience was a significant predictor of body surveillance ( $\beta = -.35, p < .05$ ), controlling for self-objectifying experiences and an interaction term (self-objectifying experiences x resilience). This interaction term was not a significant predictor of body surveillance ( $\beta = .01, p = .12$ ).	13

First author, year	Country	<i>N</i>	Gender composition	Age (years)	Population	SO measure	Personality measure	Univariable findings	Multivariable findings	Quality rating (/20)
Turner, 2015	Various	211	93.7% female, 6.3% male	<i>M</i> = 22.94, <i>SD</i> = 7.15	Community sample; history of self-injury	OBCS	Barratt Impulsiveness Scale-11	Body surveillance was not significantly correlated with impulsivity ( $r = .03, p > .05$ ).	N/A	13
Tylka, 2004	USA	373	Female only	<i>M</i> = 23.74, <i>SD</i> = 7.69	University students	OBCS	NEO-PI (Neuroticism only)	Body surveillance was significantly and positively correlated with neuroticism ( $r = .49, p < .05$ ).	N/A	12
Visser, 2014	Canada	324	63.6% female, 36.4% male (analysed separately)	<i>M</i> = 20.15, <i>SD</i> = 4.45	University students	OBCS	Big Five Inventory	Body surveillance was significantly and positively correlated with neuroticism for both women ( $r = .28, p < .01$ ) and men ( $r = .23, p < .05$ ). For women, body surveillance was not significantly correlated with openness ( $r = -.13$ ), conscientiousness ( $r = -.06$ ), extraversion ( $r = -.03$ ), or agreeableness ( $r = -.06$ ; all $ps < .05$ ). For men, body surveillance was also not significantly correlated with openness ( $r = -.07$ ), conscientiousness ( $r = .00$ ), extraversion ( $r = .12$ ), or agreeableness ( $r = -.17$ ; all $ps < .05$ ).	N/A	13

Notes: SO = self-objectification; OBCS = Objectified Body Consciousness Scale (body surveillance subscale); SOQ = Self-Objectification Questionnaire, MBSRQ = Multidimensional Body-Self Relations Questionnaire (appearance orientation subscale); NEO-PI = NEO Personality Inventory; BMI = Body Mass Index. All studies provided cross-sectional data for variables of interest.