

**Parental Influence on Young Adults' Self-Objectification and Objectification of Women
and Men**

The University of Adelaide

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Abstract

Repeated experiences of objectification, wherein a person's body is treated as representative of their value, leads individuals to adopt an observer's view of themselves, a process referred to as self-objectification. Self-objectification is associated with numerous poor outcomes, including body shame and disordered eating. Evidently, it is necessary to explore predictors of self- and other objectification. Objectification and self-objectification are both learnt processes, with media, peers, and parents being attributed as most influential. However, the literature has predominantly explored parental influence in relation to mothers' and daughters' self-objectification. Here, I explored the relationship between parents' objectification of women and men and young adults' self- and other objectification. Using convenience sampling ($N = 184$), young adults were recruited to complete a survey including measures of self- and other objectification, self-esteem, body esteem, parental care, and perceived parental objectification. Young adults recruited their parents to gain scores for parental self-objectification, and objectification of women and men. Perceived maternal objectification of women predicted daughters', but not sons', objectification of women while perceived paternal objectification was not a significant predictor. At high levels of maternal care, low perceived maternal objectification of women also protected against daughters' self-objectification. Perceived paternal objectification of women predicted daughters' self-objectification independent of paternal care. My findings fill a gap in the literature as they suggest that parental objectification of women impacts upon daughters' self-objectification and objectification of other women. Evidently, there is a need to increase parental awareness regarding the impact of objectifying women.

Keywords: self-objectification, objectification, parental influence

Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma in any University, and, to the best of my knowledge, this thesis contains no material previously published except where due reference is made. I give permission for the digital version of this thesis to be made available on the web, via The University of Adelaide's digital thesis repository, the Library Search and through web search engines, unless permission has been granted by the School to restrict access for a period of time.

22 September 2022

Contribution Statement

In writing this thesis, the research aims and intended methodological approach were developed by myself, with the guidance of my supervisor. I conducted the literature review, prepared an ethics application, and chose the scales to be used in the survey. I was responsible for participant recruitment, survey administration, and allocating course-credit to first year psychology students who participated. I conducted data analysis with the assistance of my supervisor. I wrote all sections of this thesis, and my supervisor provided feedback on all sections except for the discussion.

Parental Influence on Young Adults' Self-Objectification and Objectification of Women and Men

Objectification, the process by which individuals are treated as objects and their value determined by sexual appeal or attractiveness (Fredrickson & Roberts, 1997), is associated with numerous poor outcomes (see Moradi & Huang, 2008, for review). While men are typically the perpetrators of objectification, women also objectify women and men (Harsey & Zurbriggen, 2021; Strelan & Hargreaves, 2005). Given that most women experience objectification in their everyday lives (Koval et al., 2019), it is necessary to understand the driving forces behind this phenomenon. Explanations of how individuals learn to objectify and self-objectify have emphasised media and peer influences (Arroyo et al., 2017; Fardouly et al., 2015; Seabrook et al., 2018, 2019). In this thesis however, I tackle another likely explanation: parental influence.

Parental influence has mainly been explored in respect to mothers' self-objectification predicting daughters' self-objectification (Arroyo & Andersen, 2015; Domoff et al., 2020; McKinley, 1999). I however propose that parents model objectification, thus teaching young adults to objectify. Additionally, I hypothesise that young adults will internalise parental objectification, consequently predicting young adults' self-objectification.

Objectification Theory

Living within a patriarchal society, Fredrickson and Roberts (1997) suggested that women's positive self-concept depends upon being perceived as attractive, while men's positive self-concept is determined by ability. Specifically, sexual objectification refers to separating an individual's sexual body parts and functions from them as a person and evaluating them on their sexual desirability, whereas appearance-based objectification emphasises an individual's attractiveness in respect to beauty ideals (Morris et al., 2018).

These two forms of objectification are not often delineated within the literature, and this study will examine sexual and appearance-based objectification as co-occurring phenomena.

Being objectified is associated with four main effects of creating shame, anxiety, decreased motivational states, and lower internal bodily awareness (Moradi & Huang, 2008). While this impacts upon those objectified, the objectification of women also fosters unhealthy beliefs in men. Men who objectify women are more likely to view men as sexually dominant (Rousseau et al., 2018), be accepting of rape myths and victim-blaming narratives (Loughnan et al., 2013), and partake in acts of sexual deception or assault (Seabrook et al., 2019). The amalgamation of these factors—that is, both the impacts on women as individuals and on men’s perceptions of and relationships with women—plays a role on a societal level of normalising sexist beliefs and behaviours.

Objectification of Women

Objectification can be explained through the social cognitive theory of gender development (Bussey & Bandura, 1999), which combines both psychological and socio-structural factors to demonstrate how gender development is learnt through modelling, enacted experiences, and direct tuition. Gender is viewed as a social construct that must be understood and negotiated throughout the entire lifespan (Bussey & Bandura, 1999). Learning occurs predominantly through modelling, wherein an individual observes a given behaviour and learns the rules underpinning the behaviour to generate novel behaviours underpinned by the same principles. It is not simply enough to understand the consequences of gendered behaviours, but an individual must also be motivated to achieve the outcomes of gendered actions. Motivation may be derived from parents, with Bussey and Bandura (1999) claiming that it is most often fathers who differentiate between gender roles and demand of their sons to engage in masculine behaviours. Parents who enact traditional gender roles and

adhere to gender stereotypes may model gendered power imbalances to their sons, associating their desired masculinity with positions of power over women.

Despite the importance of considering parental influence, the literature has mainly examined the impact of media and peer influences upon son's objectification of women (Rousseau et al., 2018; Seabrook et al., 2018, 2019). Seabrook et al. (2018) has demonstrated the importance of peer influence, finding that objectification of women mediated the relationship between fraternity membership at college and endorsing sexual violence. Similarly, the influence of multiple forms of media has been explored. In a longitudinal design, Ward et al. (2015) demonstrated that exposure to men's magazines, in which women are predominantly presented as sex objects, predicted men's objectification of women. A cross-sectional study of pre-adolescent boys also found a positive association between consumption of music videos and adolescent television programmes and the objectification of women (Rousseau et al., 2018). Notably, this relationship was moderated by the extent to which parents endorsed traditional gender roles and stereotypes, with parents either amplifying or buffering the messages presented in the media (Rousseau et al., 2018). While this study is suggestive of parental influence on young men forming objectifying beliefs, no study has yet investigated a direct relationship between parents' and sons' objectification of women.

Considering the importance of parental modelling, I propose that parents' objectification of women will predict sons' objectification of women. Additionally, I suggest that parents' objectification of women and men will predict daughters' objectification of women and men as although to a lesser extent, women are perpetrators of objectification (Harsey & Zurbriggen, 2021).

Self-Objectification

Repeated objectification perpetuates self-objectification, wherein an individual internalises an observer's view of their body and treats their body as representative of their worth (Fredrickson & Roberts, 1997). This phenomenon has predominantly been documented within women and it has been shown that younger women self-objectify to a greater extent than men and older women (Crawford et al., 2008; Moradi & Huang, 2008). Fredrickson and Roberts (1997) theorised that young women have higher levels of self-objectification due to being objectified more frequently than men and older women, who are a lesser focus of male attention and have increased awareness that their value is determined by attributes outside of their appeal to men. Self-objectification is associated with numerous unfavourable outcomes for women. Moradi and Huang's (2008) review of the literature noted increased anxiety, depression, and disordered eating, as well as decreased sexual pleasure and reduced cognitive task performance, as examples of such outcomes. While men self-objectify to a lesser extent, the research thus far also suggests a detrimental impact on men's body esteem (Davids et al., 2019).

Social cognitive theory of gender development provides a framework for understanding self-objectification. Exemplifying this, daughters who observe their mothers putting on make-up and receiving compliments begin to learn that enhancing their appearance will be rewarded with praise (Bussey & Bandura, 1999). The tripartite influence model of body image and eating disturbance (van den Berg et al., 2002) is also frequently cited in explanations of self-objectification (Arroyo & Andersen, 2016; Gattino et al., 2017), with the model highlighting the media, peers, and parents as important influences.

Appearance conversations and co-rumination are common practices within female friendships, with the sharing of disparaging comments about oneself being motivated by group acceptance over similar disclosures (Arroyo et al., 2017). For adolescent girls,

engaging in appearance conversations with friends is predictive of self-objectification (Tiggemann & Slater, 2015). Likewise, social media and magazine consumption is positively associated with self-objectification for young women (Fardouly et al., 2015). While the literature has demonstrated the influence of peers and the media, it is also necessary to consider the influence of parents. Particularly during adolescence and young adulthood, periods of time through which self-objectification is greatest (Moradi & Huang, 2008), parents play important roles as the first social influences. While the relationship between mothers' and daughters' self-objectification has been explored, less work has examined the role of fathers or the influence of parenting upon sons' self-objectification.

Mothers' and Daughters' Self-Objectification

From an early age, daughters model their mothers' behaviours regarding appearance concerns and self-objectification. Experimentally, Perez et al. (2018) found that 5- to 7-year-old girls who stood in front of a mirror and made positive comments about their bodies, would change their comments to be more negative after observing their mother comment negatively on her body. Where mothers were instructed to comment positively, the opposite was also true with mothers influencing daughters to change negative comments to be more positive. In this study, not one daughter changed her commentary to be incongruent with her mother's, highlighting the importance of mothers modelling body talk about themselves. Demonstrating the influence of modelling outside of an experimental context, Slater and Tiggemann (2016) found that 5- to 8-year-old girls' appearance concerns were positively associated with their mothers' self-objectification.

Body surveillance, or the continual monitoring and comparison of one's body to beauty ideals, is considered the behavioural manifestation of self-objectification (Moradi & Varnes, 2017). McKinley (1999) was the first to highlight a relationship between mothers' and daughters' self-objectification, finding that significant, albeit modest, correlations existed

between mothers' and daughters' body surveillance. Similarly, Arroyo and Andersen (2015) found a small correlation between mothers' and daughters' self-objectification. Contrastingly however, Domoff et al.'s (2020) attempt to replicate such findings found no significant correlation between mothers' and daughters' body surveillance. As aforementioned, young women self-objectify to a greater extent than older women (Crawford et al., 2008). Hence, I suggest that one reason for finding small or non-significant correlations between mothers' and daughters' self-objectification is due to mothers' decreased self-objectification as they age.

Mothers' Objectification of Women and Daughters' Self-Objectification

While men are typically the perpetrators of objectification, women also objectify women (Harsey & Zurbriggen, 2021; Strelan & Hargreaves, 2005). In fact, women are more likely to objectify other women, than they are to self-objectify (Strelan & Hargreaves, 2005). Consequently, mothers' objectification of women may be internalised by daughters. While the literature has not explored the relationship between mothers' objectification of women and daughters' self-objectification, 'fat talk', or conversations regarding weight and diet, have been examined. It has consistently been shown that engaging in and exposure to another person's own negative body talk or fat talk is damaging for daughters (Arroyo & Andersen, 2015, 2016; Domoff et al., 2020). Arroyo and Andersen (2016) found that self-directed fat talk between mothers and daughters was negatively associated with daughters' body satisfaction, and positively associated with daughters' drive for thinness and body surveillance.

I propose that mothers' negative body talk about other women may also influence daughters. While mothers' self-objectification may decrease with age, the same is not necessarily true for mothers' objectification of other women. Therefore, I hypothesise that mothers' objectification of women will predict daughters' self-objectification.

Fathers' Objectification of Women and Daughters' Self-Objectification

Paternal influence on daughters' self-objectification should also be considered. I propose that fathers who prescribe to more stringent gender roles and stereotypes may reinforce daughters' self-objectification. Ambivalent sexism theory (Glick & Fiske, 1996) assists in the explanation of how fathers' attitudes and behaviours may influence their daughters' self-perceptions. Ambivalent sexism includes two facets of hostile and benevolent sexism. Where hostile sexism involves negative attitudes towards women and justifies men's power over women through beliefs in male superiority, benevolent sexism instead reinforces gender inequality through the condescending assumption that women are fragile beings who need men's protection (Glick & Fiske, 1996).

Experimentally, the impact of benevolent sexism upon women's self-objectification has been explored. Shepherd et al. (2010) found that women who observed an act of benevolent sexism, such as a man insisting on carrying a heavy item for a woman, reported higher levels of body shame and surveillance in a survey immediately after the event compared to women who did not witness the act of benevolent sexism. If a temporary increase in body shame and surveillance can be seen following one event of benevolent sexism, Berntson et al. (2017) hypothesised that frequent paternal comments that were underlaid with benevolently sexist beliefs, such as "you're not going out dressed like that", would impact upon daughters' self-objectification. However, no significant association was found between fathers' benevolent sexism and daughters' self-objectification.

I argue that a lack of a significant association may be due to the subtlety of these benevolently sexist messages. Benevolent sexism is predominantly reserved for women who prescribe to normative gender roles and are seen as beautiful and delicate, whereas women who do not conform are more frequently met with hostile sexism (Glick & Fiske, 1996). Given that hostile sexism predicts objectification more strongly than benevolent sexism

(Bradshaw, 2020), I propose that fathers with increased hostile sexism may objectify women for not conforming to beauty standards. Hence, fathers who objectify women may influence daughters' internalisation of these messages and thus, influence their self-objectification.

Sons' Self-Objectification

The literature on self-objectification has predominantly focused upon women. However, Moradi and Huang (2008) acknowledged that a focus upon minorities and men was important moving forward. Like women, young men experience higher levels of self-objectification than older men (Murray & Lewis, 2014). In a study of 911 adolescent boys, their consumption of pornography, but not sexualising music videos or magazines, predicted self-objectification (Vandenbosch & Eggermont, 2013). While media consumption possesses an association with young women's self-objectification (Fardouly et al., 2015), Vandenbosch and Eggermont (2013) suggest that the same impact may not be as prevalent within a male population. This contradicts Fredrickson and Roberts' (1997) claims that exposure to objectification alone is enough to adopt an observer's view of the body and self-objectify. Evidently, further exploration into predictors of men's self-objectification is necessary.

With a scarce literature, parental influence on young men's self-objectification is unclear. Keery et al. (2006) found no association between mothers' and sons' body dissatisfaction and Katz-Wise et al. (2013) found that mothers' body shame negatively predicted both sons' and daughters' body surveillance, a result that has been provided little support in the literature. It is unclear whether parenting factors are more predictive of daughters' self-objectification than sons' self-objectification, with Rodgers et al. (2009) finding that parental commenting on body shape, parental pressure surrounding weight, and parental modelling of weight and appearance control practices explained a greater variance of daughters' body dissatisfaction than sons'. However, while maternal variables contributed more to daughters' explained variance, paternal variables were stronger predictors for sons'

body dissatisfaction (Rodgers et al., 2009). With small correlations found between mothers' and daughters' self-objectification (Arroyo & Andersen, 2015; McKinley, 1999), I propose that likewise, fathers may model self-objectification to their sons.

Parental Care as a Protective Factor

Parental care refers to caring for and an involvement in children's lives in comparison to an indifference towards or rejection of the child (Parker et al., 1979). Parental care is associated with improved child outcomes across the lifespan, such as better adjustment and mental health (Thorberg et al., 2010; Xu et al., 2018), prosocial behaviours (Malonda et al., 2019), and decreased risk of addictive disorders (Villalta et al., 2014). The role of parental care on young adults' self-objectification has also been considered.

Arroyo and Andersen (2015) found that maternal care moderated the relationship between mothers' and daughters' self-objectification so that mothers' influence on daughters was greater when maternal care was decreased. Contrastingly, Cooley et al. (2008) found that the relationship between mothers and daughters was not associated with daughters' body image. While Arroyo and Andersen (2015) measured maternal care with the validated Care subscale from Parker et al.'s (1979) Parental Bonding Instrument, Cooley et al. (2008) measured the mother-daughter relationship less rigorously, with one Likert-scale question asking daughters to rate their relationship with their mother. I aim to replicate Arroyo and Andersen's (2015) method and investigate further whether maternal care moderates the relationship between mothers' and daughters' self-objectification.

Paternal care may also protect against daughters' self-objectification. Rodgers et al. (2009) found that positive paternal comments protected against daughters' body dissatisfaction and likewise, Berntson et al. (2017) found father-daughter closeness to be protective against self-objectification specifically. However, Berntson et al.'s (2017) findings are contradicted by those of Miles-McLean et al. (2014), who found that while paternal care

negatively predicted body shame and depression for daughters, it did not predict self-objectification. Evidently, paternal factors impact upon daughters' body image, but further investigation is required into the influence on daughters' self-objectification specifically.

To the best of my knowledge, no study has considered the role of parental protective factors for sons' self-objectification. However, Katz-Wise et al. (2013) found that across gender, the mother-child relationship acted to increase young adults' body esteem. Hence, exploration into the influence of parental care upon sons' self-objectification is required.

Aims and Hypotheses

While the impact of media and peer influences upon men's objectification of women has been considered, I have highlighted the necessity of examining the relationship between parents' and sons' objectification of women. Additionally, as women are also perpetrators of objectification (Harsey & Zurbriggen, 2021), it is worth considering predictors of women's objectification. I have also outlined gaps in the literature in respect to young adults' self-objectification. While the relationship between mothers' and daughters' self-objectification has been explored, the correlation between these two factors is relatively small. I suggest that this may be resultant of mothers' decreased self-objectification more generally (Crawford et al., 2008). Instead, I propose that mothers' objectification of women will be internalised by daughters. Similarly, while paternal care has been explored in relation to daughters' body image, the influence of fathers' objectification of women upon daughters' self-objectification has not yet been considered. It is suggested that men also experience poor outcomes from self-objectification (Davids et al., 2019). Therefore, I aim to explore the relationship between parenting and self-objectification for young men as well.

Increased awareness regarding parental influence on young adults' self- and other objectification will possess both theoretical and practical implications. In respect to theoretical implications, findings that align with the hypotheses will further support the

tripartite influence model's (van den Berg et al., 2002) claims that parents are important influences on young adults' body image. Additionally, this study will fill a gap in the literature as no study has yet investigated a direct relationship between parental influence and objectification. Understanding parental influence on young adults' self- and other objectification also holds important practical implications given the associations between self-objectification and numerous poor outcomes (Moradi & Huang, 2008) and the association between the objectification of women and sexual assault (Seabrook et al., 2019). Evidently, increased awareness surrounding parental influence may assist in interventions targeting young adults' poor body image or sexual violence against women.

Based upon the reviewed literature, the following confirmatory hypotheses are proposed¹:

H1: Daughters will have significantly lower self-esteem and body esteem than sons.

H2: Daughters will have significantly higher levels of self-objectification than sons, mothers, and fathers.

H3: Men will objectify women significantly more than women objectify women.

H4: Women will objectify men significantly more than men objectify men.

Based upon the gaps identified, I also propose the following exploratory hypotheses:

H5: Parental objectification of women will predict young adults' objectification of women, moderated by gender so that this relationship is stronger for sons.

H6: Parental objectification of men will predict young adults' objectification of men, moderated by gender so that this relationship is stronger for daughters.

H7: Maternal self-objectification will predict daughters' self-objectification, self-esteem, and body esteem, moderated by maternal care so that this relationship is stronger at low levels of care.

¹ Due to these hypotheses being confirmatory, they are not explicitly stated in the pre-registration.

H8: Parental objectification of women will predict daughters' self-objectification, self-esteem, and body esteem, moderated by parental care so that this relationship is stronger at low levels of care.

H9: Paternal self-objectification will predict sons' self-objectification, self-esteem, and body esteem, moderated by paternal care so that this relationship is stronger at low levels of care.

H10: Parental objectification of men will predict sons' self-objectification, self-esteem, and body esteem, moderated by parental care so that this relationship is stronger at low levels of care.

H11: Young adults' perceived parental objectification of women and men will better predict young adults' outcomes than parents' self-reported objectification of women and men.

Method

Transparency and Openness

I pre-registered this study on As Predicted (see Appendix). An a priori power analysis was conducted using G Power (Faul et al., 2007), indicating that a sample of 77 young adults and 77 parents was required to detect a medium effect size for multiple regressions with three predictor variables ($\alpha = .05, f^2 = .15, \beta = .80$). All manipulations, measures, and data exclusions are reported. Data were analysed using IBM SPSS Version 28.

Participants

A sample size of $N = 184$ was obtained, consisting of 94 daughters, 44 sons, 32 mothers, and 14 fathers. The mean age of young adults and parents were 20.2 and 51.3 years respectively. Eighty-four percent of participants identified as Australian, European, or American while 16% identified as African, Asian, or Indigenous Australian. Inclusion criteria required young adults to be aged 18 to 25 years old, while parents were invited to participate

regardless of age. All participants were required to be Australian residents fluent in English to ensure comprehension of instructions.

Procedure

Convenience sampling was used to recruit participants through social media and The University of Adelaide's first year psychology course. After informed consent was gained, participants completed a survey on Qualtrics. Given the importance of measuring young adults' and parents' attitudes, young adults were asked to recruit their parents to participate in the study. However, this was not necessary for young adults to be included in the study. First year psychology students received course credit regardless of their parents' completion of the survey. To match young adults' and parents' data, young adults were asked to create and enter a code consisting of a colour and four digits at the start of the survey. Young adults then passed on their code to their parents to enter into the survey. As an extra precaution, young adults and parents were asked to enter their own and their family members' initials to assist in matching data. This final step was optional.

Given that the survey may have caused discomfort, Lifeline and university counselling service contact details were provided. This study received approval from The University of Adelaide's School of Psychology Human Research Ethics Committee (22/16).

Measures

All participants completed demographic questions and scales assessing self-objectification and objectification of women and men. Demographic questions included age, gender, and ethnicity. Young adults also completed scales of self-esteem, body esteem, parental care, and perceived parental objectification of women and men for important parental figures in their lives. Unless otherwise indicated, all multi-item measures were scored on a 5-point Likert scale from strongly disagree to strongly agree. Following reverse

coding where appropriate, all scales were averaged, with higher scores indicating greater endorsement.

Self-Objectification

Self-objectification was measured using the Self-Objectification Beliefs and Behaviours Scale (SOBBS; Lindner & Tantleff-Dunn, 2017). The SOBBS is a self-report scale consisting of 14 items such as “I consider how my body will look to others in the clothing I am wearing”. The SOBBS maps onto two dimensions of self-objectification; firstly, internalising an observer’s view of the body and secondly, treating the body as capable of representing the whole self (Lindner & Tantleff-Dunn, 2017). The SOBBS is a newer scale that aims to overcome the limitations of two commonly used scales; the Self-Objectification Questionnaire (SOQ; Noll & Fredrickson, 1998) and the Objectified Body Consciousness Body Surveillance subscale (McKinley & Hyde, 1996)². The SOBBS has high internal consistency of .92 (Lindner & Tantleff-Dunn, 2017; current study $\alpha = .93$).

Objectification of Women and Men

I measured objectification of women and men using an adapted version of the SOQ (Noll & Fredrickson, 1998)³. The adapted SOQ required participants to think of the female body and rank ten attributes from most to least important. This process was completed a second time when asked to think of the male body. Five of the attributes are competency-based items such as “health” and “physical fitness” while the other five are appearance-based items such as “measurements” and “sex appeal”. Two final scores for objectification of

² The SOQ is often completed incorrectly, leading to missing data, and focuses purely on a competence versus appearance dichotomy. McKinley and Hyde’s (1996) Body Surveillance subscale arguably does not measure self-objectification but instead a behavioural manifestation of self-objectification. The SOBBS also possesses better predictive validity than Body Surveillance or the SOQ for body image, depression, and disordered eating (Lindner & Tantleff-Dunn, 2017).

³ The adapted SOQ has been used in other studies to determine objectification of others (Strelan & Hargreaves, 2005; Strelan & Pagoudis, 2018). This scale was selected over the Interpersonal Sexual Objectification Scale- Perpetrator (ISOS-P) (Gervais et al., 2018), given that the ISOS-P requires participants to self-report their own unwanted sexual advances on others. I also anticipated that the ISOS-P’s overt wording of items would lead to socially desirable responses.

women and men were determined by calculating the difference between the sum of appearance and competency rankings. Possible scores range from -25 to 25, with higher scores indicating greater objectification. While the rank-order format of the SOQ means internal consistency of the scale cannot be calculated typically, high negative correlations between the rankings of appearance and competence items have been found ($r = -.81$), supporting the reliability of the measure (Hill & Fischer, 2008).

Parental Care

Young adults completed scales of perceived parental care for all important parental figures in their lives. Parental care was measured using the care subscale from Parker et al.'s (1979) Parental Bonding Instrument (PBI). The scale asks participants to reflect on their parent over their first 18 years of life and rate 12 items such as "could make me feel better when I was upset" on a 4-point Likert scale. The split-half reliability for the care subscale of the PBI was measured by Parker et al. (1979), finding a Pearson's correlation coefficient of .88 (current study $\alpha = .95$ and .93 for maternal and paternal care respectively).

Perceived Parental Objectification of Women and Men

I included two scales asking young adults to rate perceived parental objectification of women and men. These scales were completed for each important parental figure. While no validated scale exists for measuring perceived parental objectification, Rudiger and Winstead (2013) have asked young adults to rate the frequency with which they engage in negative body talk about themselves with parents, friends, or partners. The three questions regarding the frequency of negative body talk were rated on a Likert scale, suggesting high internal consistency with an alpha coefficient of .84 (Rudiger & Winstead, 2013). The scales used in this survey were based upon Rudiger and Winstead's (2013) scale, with young adults rating how frequently their parents comment on the appearance of female and male friends or

relatives, strangers, or media personalities. In the present study, alpha coefficients ranged from .89 to .90 for perceived maternal and paternal objectification of women and men.

Self-Esteem

Young adults also completed Rosenberg's (1965) Self-Esteem Scale. The scale consists of 10 items, including statements such as "I feel that I have a number of good qualities". Rosenberg's (1965) Self-Esteem Scale is one of the most commonly used measures of self-esteem, with the scale possessing a mean internal consistency of .81 across 53 countries (Schmitt & Allik, 2005; current study $\alpha = .92$).

Body Esteem

Body esteem was measured for young adults using Mendelson et al.'s (2001) Body Esteem Scale for Adolescents and Adults (BESAA). The BESAA includes 23 items such as "I like what I see when I look in the mirror". The BESAA includes three subscales of appearance, weight, and attribution; all of which possess internal consistency ranging from .75 to .96 across age and gender (Mendelson et al., 2001; current study $\alpha = .94$).

Results

Data Exclusions

I collected 221 responses however, following the pre-registered data exclusions (see Appendix), my sample consisted of 184 responses. Data exclusions included four young adults aged over 25 years, three participants identifying as non-binary, 20 participants who failed attention checks, and 10 parents who could not be matched to young adults.

Normality and Outliers

Normality was assessed using Shapiro-Wilk and Kolmogorov-Smirnov tests where appropriate and visually examined with QQ-plots and histograms. Most variables were approximately normally distributed. However, maternal care was negatively skewed and

daughters' objectification of women and men, mothers' objectification of women, fathers' self-objectification, and perceived paternal objectification of women and men were positively skewed. Parametric tests were used regardless, as they are robust to violations of normality (Mishra et al., 2019). As pre-registered, for every scale administered, outliers (outside 2.5 standard deviations of the mean) were removed.

Hypothesis Testing

Analyses using parent-reported self-objectification or objectification of women or men as predictor variables are not reported as these analyses lacked statistical power due to small samples ($n = 32$ for mothers and $n = 14$ for fathers). Likewise, analyses using sons' self-objectification, self-esteem, or body esteem as outcome variables are not reported due to a small sample size ($n = 44$) and consequent lack of power⁴. In summary, it was not feasible to test H7, H9, H10, and H11.

Testing of Group Differences (H1, H2, H3, and H4)

I employed *t*-tests and Analysis of Variance (ANOVA) to determine group differences for H1, H2, H3 and H4. Independent samples *t*-tests were used where there were independent observations while paired samples *t*-tests were used for analyses with related observations. Homogeneity of variance was assessed using Levene's Test, indicating that this assumption had been met. As aforementioned, most variables were approximately normal and given parametric tests' robustness to normality violations (Mishra et al., 2019), *t*-tests and ANOVAs were conducted.

Testing of H1: Group Differences in Self-Esteem and Body Esteem

Based upon the literature, H1 stated that daughters would score significantly lower in self-esteem and body esteem than sons. This hypothesis was partially supported, with independent samples *t*-tests showing that while daughters' mean score for body esteem (see

⁴ All underpowered analyses were still conducted, and all returned non-significant results.

Table 1) was significantly lower than that of sons', $t(136) = 2.49, p = .014$, there was no significant difference between sons and daughters for self-esteem, $t(136) = 1.76, p = .081$.

Testing of H2: Group Differences in Self-Objectification

H2 stated that daughters would have significantly higher self-objectification than mothers, sons, and fathers. As seen in Figure 1, Tukey-Kramer post-hoc comparisons following a significant ANOVA, $F(3,179) = 14.86, p < .001$, showed that while daughters had significantly higher levels of self-objectification than sons, mothers, and fathers, there were no other significant differences in self-objectification (all post-hoc p values are reported in Table 2).

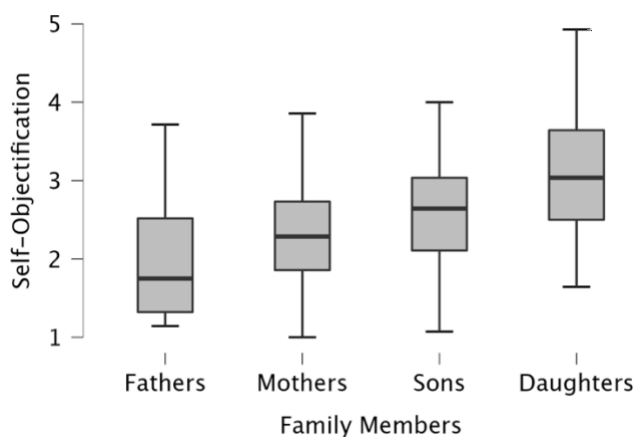
Table 1

Means and Standard Deviations for Age, Self-Objectification, Objectification of Women and Men, Self-Esteem, and Body Esteem

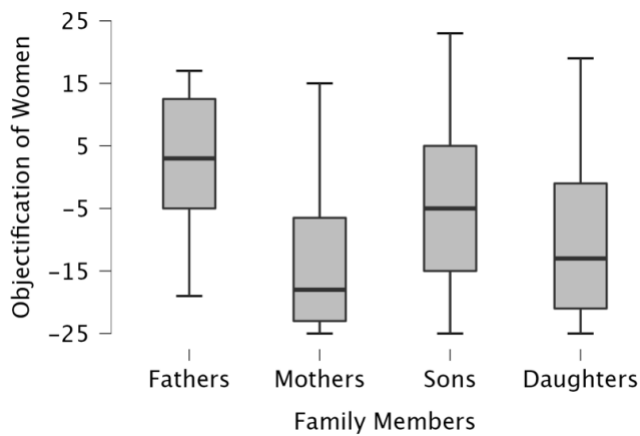
Group	Daughters ($n = 94$)		Sons ($n = 44$)		Mothers ($n = 32$)		Fathers ($n = 14$)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Age	19.91	2.07	20.93	2.16	50.65	5.67	52.71	7.00
Self-objectification	3.10	0.83	2.58	0.69	2.32	0.71	1.98	0.80
Objectification of women	-10.25	12.93	-4.36	12.57	-13.13	11.63	2.43	11.80
Objectification of men	-10.85	10.10	-7.23	10.86	-10.75	10.96	-10.57	8.88
Self-esteem	2.59	0.60	2.79	0.62	-	-	-	-
Body esteem	2.69	0.73	3.03	0.74	-	-	-	-

Table 2*Post-hoc Analyses of Group Differences in Self-Objectification*

Family Member		<i>p</i>	95% Confidence Interval	
			Lower Limit	Upper Limit
Daughters	Sons	.002	0.15	0.89
	Mothers	<.001	0.36	1.18
	Fathers	<.001	0.54	1.69
Sons	Mothers	.503	-0.22	0.72
	Fathers	.063	-0.02	1.22
Mothers	Fathers	.510	-0.30	0.99

Figure 1*Boxplot of Self-Objectification Scores***Testing of H3: Group Differences in Objectification of Women**

H3 was supported, with an independent samples *t*-test finding that men objectified women significantly more than women did, $t(182) = 3.90, p < .001$. Post-hoc comparisons of a significant ANOVA, $F(3,180) = 6.67, p < .001$, showed that fathers objectified women significantly more than mothers and daughters and that sons objectified women significantly more than mothers (see Table 3 for post-hoc analyses). However, a paired samples *t*-test showed that young adults perceived mothers to objectify women more than fathers (see Table 4).

Figure 2*Boxplot of Objectification of Women Scores***Table 3***Post-hoc Analyses of Group Differences in Objectification of Women*

Family Member		<i>p</i>	95% Confidence Interval	
			Lower Limit	Upper Limit
Daughters	Sons	.089	-11.56	0.55
	Mothers	.600	-3.53	10.04
	Fathers	.005	-21.80	-2.80
Sons	Mothers	.019	1.06	16.46
	Fathers	.310	-16.96	3.38
Mothers	Fathers	.001	-26.18	-4.93

Table 4*Paired Samples *t*-tests of Parental Care and Perceived Parental Objectification of Women and Men*

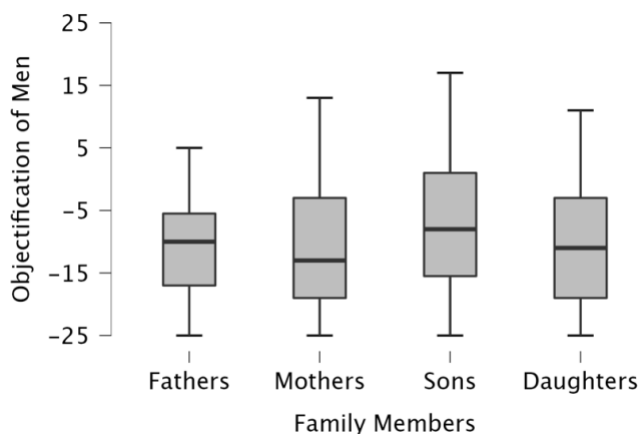
Parent	Mothers (<i>n</i> = 135)		Fathers (<i>n</i> = 121)		<i>t</i>	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Parental care	3.18	0.61	2.91	0.75	4.03	<.001	.37
Perceived objectification of women	2.71	1.08	1.90	0.85	6.20	<.001	.57
Perceived objectification of men	2.26	0.88	1.61	0.66	6.88	<.001	.63

Testing of H4: Group Differences in Objectification of Men

H4 stated that women would objectify men significantly more than men. However, I found no significant difference in men's and women's objectification of men, $t(182) = 1.39$, $p = .168$. An ANOVA conducted to determine differences between daughters, sons, mothers, and fathers objectifying men returned a non-significant result, $F(3,180) = .998$, $p = .395$ (see Figure 3). A paired samples t -test showed a significant difference in perceived parental objectification of men, with young adults perceiving mothers to objectify men more than fathers (see Table 4).

Figure 3

Boxplot of Objectification of Men Scores



Testing of the Moderation Models (H5, H6, and H8)

Hayes' (2022) PROCESS Macro (version 4.1; Model 1; 5000 iterations) was employed to conduct the moderations for H5, H6, and H8. Model 1 was used to determine the presence of a moderation effect. I ran Model 1 in PROCESS twice for each outcome variable, using either perceived maternal or paternal objectification of women as the focal predictor. Perceived maternal and paternal objectification of men were only used as focal predictors where young adults' objectification of men was the outcome variable. Young adults' gender was entered into the model as the moderator for analyses using young adults' objectification of women or men as the outcome variable. Maternal or paternal care was entered as the

moderator for analyses with daughters' self-objectification, self-esteem, or body esteem as the outcome variable. In all models, continuous variables were mean-centred.

Testing of H5: Perceived Maternal and Paternal Objectification of Women Predicting Young Adults' Objectification of Women, Moderated by Gender

As shown in Table 5, the main effect of perceived maternal objectification was not significant while the main effect of gender was significant. There was a significant interaction between perceived maternal objectification and gender (see Figure 4). A simple effects analysis found a significant effect of perceived maternal objectification for daughters ($B = 3.22, p = .006, CI_{95\%} [0.93, 5.51]$) but not for sons ($B = -2.17, p = .270, CI_{95\%} [-6.03, 1.70]$). From another angle, gender was a significant predictor at low levels of objectification ($B = -11.99, p < .001, CI_{95\%} [-18.41, -.57]$) but not high levels ($B = -0.34, p = .923, CI_{95\%} [-7.33, 6.65]$). This analysis indicates that low perceived maternal objectification protects against daughters', but not sons', objectification of women. Additionally, for perceived paternal objectification as the focal predictor, there was a main effect of gender, but no main effect of perceived paternal objectification, nor an interaction between perceived paternal objectification and gender (see Table 5).

Table 5

Summary of Moderation Models for Perceived Maternal and Paternal Objectification of Women Predicting Young Adults' Objectification of Women

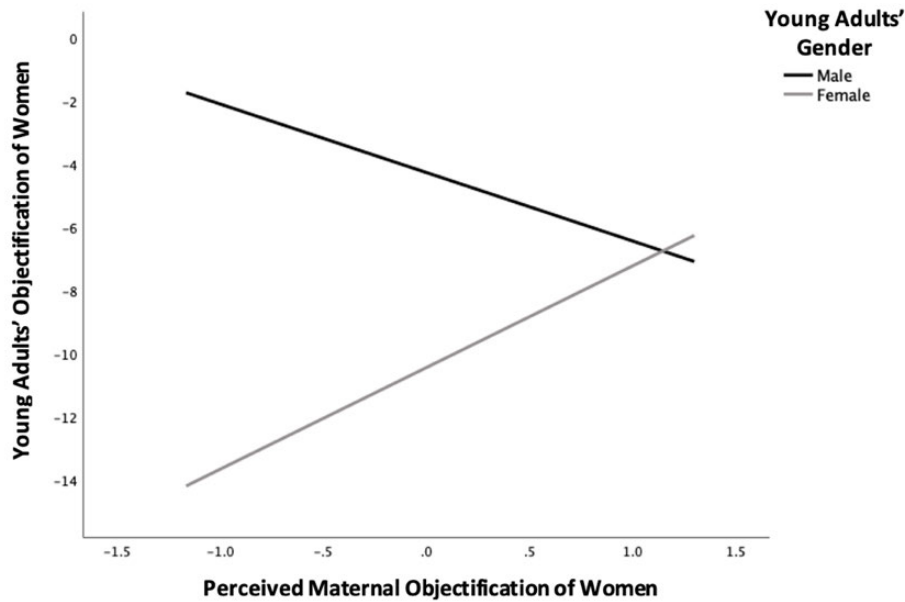
Young Adults' Objectification of Women	Predicted by Maternal Objectification <i>B</i> (CI _{95%} LL/UL)	Predicted by Paternal Objectification <i>B</i> (CI _{95%} LL/UL)
Main effects		
Perceived parental objectification	1.57 (-0.41, 3.55)	-0.70 (-9.38, 7.98)
Young adults' Gender	-6.17 (-10.79, -1.54)**	-6.47 (-11.36, -1.57)**
Interaction		
Perceived parental objectification x Gender	5.38 (0.89, 9.88)*	2.49 (-2.68, 7.66)

Note. CI = confidence interval; LL = lower limit; UL = upper limit.

* $p < .05$, ** $p < .01$, *** $p < .001$

Figure 4

Perceived Maternal Objectification of Women Predicting Young Adults' Objectification of Women



Testing of H6: Perceived Maternal and Paternal Objectification of Men Predicting Young Adults' Objectification of Men, Moderated by Gender

H6 stated that perceived maternal and paternal objectification of men would predict young adults' objectification of men, moderated by gender so that this relationship would be stronger for daughters than sons. However, as shown in Table 6, there were no significant main effects or interactions for both perceived maternal and paternal objectification as the predictor variables.

Table 6

Summary of Moderation Models for Perceived Maternal and Paternal Objectification of Men Predicting Young Adults' Objectification of Men

Young Adults' Objectification of Men	Predicted by Maternal Objectification <i>B</i> (CI _{95%} LL/UL)	Predicted by Paternal Objectification <i>B</i> (CI _{95%} LL/UL)
Main effects		
Perceived parental objectification	-4.29 (-11.26, 2.67)	2.76 (-5.31, 10.83)
Young Adults' Gender	-6.47 (-7.40, 0.25)	-3.97 (-7.98, 0.03)
Interaction		
Perceived parental objectification x Gender	3.18 (-0.77, 7.12)	-1.04 (-5.87, 3.80)

Note. CI = confidence interval; LL = lower limit; UL = upper limit.

* $p < .05$, ** $p < .01$, *** $p < .001$.

Testing of H8 (Part 1): Perceived Maternal and Paternal Objectification of Women

Predicting Daughters' Self-Objectification, Moderated by Parental Care

As shown in Table 7, there were main effects of perceived maternal objectification and maternal care, as well as an interaction between perceived maternal objectification and maternal care. Further analysis found a significant effect of perceived maternal objectification at high levels of maternal care ($B = 0.35$, $p = .001$, CI_{95%} [0.14, 0.56]) but not low levels ($B = 0.05$, $p = .599$, CI_{95%} [-0.13, 0.23]). From another perspective, maternal care was significant at low levels of objectification ($B = -0.59$, $p = .001$, CI_{95%} [-0.94, -0.24]) but not high levels of objectification ($B = -0.09$, $p = .529$, CI_{95%} [-0.38, 0.20]). This suggests that when maternal care is high, decreased perceived maternal objectification of women protects against daughters' self-objectification (see Figure 5).

Also shown in Table 7, the main effects of perceived paternal objectification and paternal care were both significant. However, the interaction between perceived paternal objectification and paternal care was not significant, suggesting that the effect of perceived paternal objectification on daughters' self-objectification is not dependent upon levels of paternal care.

Table 7

Summary of Moderation Models for Perceived Maternal and Paternal Objectification of Women Predicting Daughters' Self-Objectification

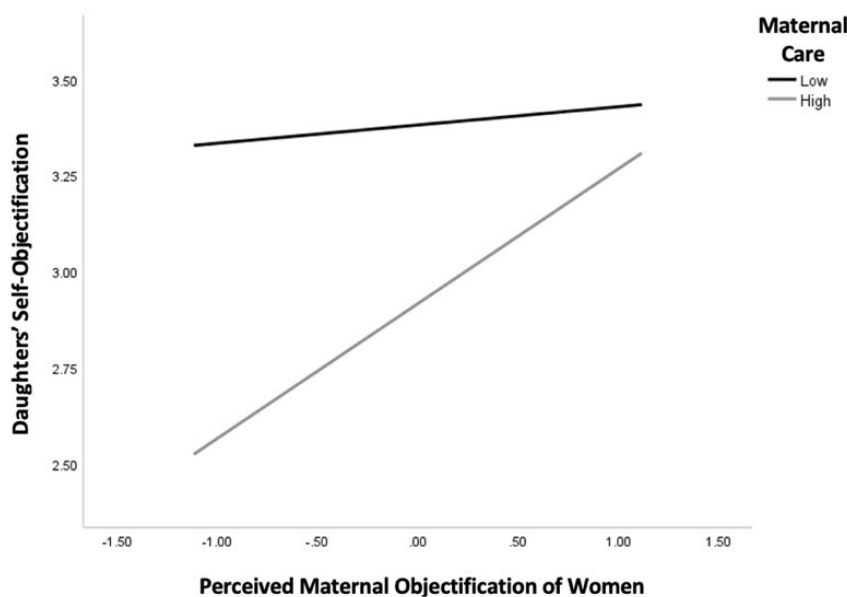
Daughters' Self-Objectification	Predicted by Maternal Objectification <i>B</i> (CI _{95%} LL/UL)	Predicted by Paternal Objectification <i>B</i> (CI _{95%} LL/UL)
Main effects		
Perceived parental objectification	0.20 (0.05, 0.35)**	0.26 (0.06, 0.47)*
Parental care	-0.34 (-0.58, -0.10)**	-0.34 (-0.56, -0.12)**
Interaction		
Perceived parental objectification x Parental care	0.22 (0.04, 0.41)*	0.12 (-0.11, 0.35)

Note. CI = confidence interval; LL = lower limit; UL = upper limit.

* $p < .05$, ** $p < .01$, *** $p < .001$.

Figure 5

Perceived Maternal Objectification of Women Predicting Daughters' Self-Objectification



Testing of H8 (Part 2): Perceived Maternal and Paternal Objectification of Women

Predicting Daughters' Self-Esteem, Moderated by Parental Care

As shown in Table 8, the main effect of maternal care, but not perceived maternal objectification of women, predicted daughters' self-esteem. There was a significant interaction between perceived maternal objectification and maternal care. Inspection of the

conditional effects showed that perceived maternal objectification predicted daughters' self-esteem at high ($B = -0.20, p = .009, CI_{95\%} [-0.34, -0.05]$), but not low ($B = 0.01, p = .899, CI_{95\%} [-0.12, 0.13]$), levels of care. Looking at these relationships from a different angle, maternal care was a significant predictor of daughters' self-esteem at high ($B = 0.23, p = .027, CI_{95\%} [0.03, 0.43]$) and low ($B = 0.56, p < .001, CI_{95\%} [0.32, 0.81]$) levels of objectification. Table 8 also shows that while perceived paternal objectification and paternal care had main effects upon daughters' self-esteem, there was no significant interaction between these predictors.

Table 8

Summary of Moderation Models for Perceived Maternal and Paternal Objectification of Women Predicting Daughters' Self-Esteem

Daughters' Self-Esteem	Predicted by Maternal Objectification $B (CI_{95\%} LL/UL)$	Predicted by Paternal Objectification $B (CI_{95\%} LL/UL)$
Main effects		
Perceived parental objectification	-0.09 (-0.20, 0.01)	-.15* (-0.29, -0.02)
Parental care	0.40*** (0.23, 0.57)	0.42*** (0.28, 0.57)
Interaction		
Perceived parental objectification x Parental care	-0.15* (-0.28, -0.02)	-0.09 (-0.24, 0.06)

Note. CI = confidence interval; LL = lower limit; UL = upper limit.

* $p < .05$, ** $p < .01$, *** $p < .001$.

Testing of H8 (Part 3): Perceived Maternal and Paternal Objectification of Women

Predicting Daughters' Body Esteem, Moderated by Parental Care

As shown in Table 9, the main effects of perceived maternal objectification and maternal care were significant. Additionally, the interaction between perceived maternal objectification and maternal care significantly predicted daughters' body esteem. Further analysis showed that perceived maternal objectification predicted daughters' body esteem at high ($B = -0.29, p = .004, CI_{95\%} [-0.48, -0.10]$), but not low ($B = -0.01, p = .933, CI_{95\%} [-0.17, 0.15]$), levels of care. From another angle, maternal care was significant at low ($B = 0.52, p$

= .002, CI_{95%} [0.20, 0.83]), but not high ($B = 0.06$, $p = .644$, CI_{95%} [-0.20, 0.32]), levels of objectification. It is also shown in Table 9 that perceived paternal objectification, but neither paternal care nor the interaction term, were significant predictors of daughters' body esteem.

Table 9

Summary of Moderation Models for Perceived Maternal and Paternal Objectification of Women Predicting Daughters' Body Esteem

Daughters' Body Esteem	Predicted by Maternal Objectification <i>B</i> (CI _{95%} LL/UL)	Predicted by Paternal Objectification <i>B</i> (CI _{95%} LL/UL)
Main effects		
Perceived parental objectification	0.07* (-0.28, -0.01)	-0.24** (-0.42, -0.06)
Parental care	0.29** (0.07, 0.51)	0.14 (-0.06, 0.33)
Interaction		
Perceived parental objectification x Parental care	-0.20* (-0.37, -0.04)	-0.09 (-0.29, 0.12)

Note. CI = confidence interval; LL = lower limit; UL = upper limit.

* $p < .05$, ** $p < .01$, *** $p < .001$.

Discussion

Summary

The aims of the present study were to examine group differences in self- and other objectification and explore the relationships between parental influence and young adults' self- and other objectification. H1, H2, H3, and H4 pertained to confirmatory analyses. H1, which stated that daughters would have lower self-esteem and body esteem than sons, was partially supported by the results. H2, relating to daughters scoring highest in self-objectification, was supported. H3 was also supported, with the results showing that men objectified women significantly more than women. No support was provided for H4, as there were no significant differences in men and women's objectification of men.

H5, H6, and H8 considered the influence of parenting upon young adults' self- and other objectification. In partial support of H5, low perceived maternal objectification

protected against daughters' objectification of women however, there were no predictors of sons' objectification of women. No support was provided for H6 as perceived parental objectification of men did not predict young adults' objectification of men. H8 was partially supported as perceived parental objectification of women predicted daughters' self-objectification, self-esteem, and body esteem. However, moderation did not occur as hypothesised.

As aforementioned, analyses for H7, H9, H10, and H11 were not reported. H10 stated that parental objectification of men would predict sons' self-objectification, self-esteem, and body esteem, moderated by parental care. However, this was not reported as the sample size of sons was underpowered for moderation analysis. H7 and H9 stated that parental self-objectification would predict young adults' self-objectification and H11 stated that perceived parental objectification would better predict young adults' outcomes than parents' self-reported objectification. However, no conclusions can be drawn from these hypotheses as the sample size of parents was underpowered.

Testing of H1: Group Differences in Self-Esteem and Body Esteem

H1 stated that daughters would score significantly lower in self-esteem and body esteem. H1 was partially supported as while daughters scored lower in body esteem, there were no significant differences between daughters' and sons' self-esteem. This contradicts the findings of Strelan and Pagoudis (2018), who found that women scored significantly lower than men in self-esteem and body esteem. However, these results support the theorising of Fredrickson and Roberts (1997), who claimed that women's positive self-concept is determined by their appearance while men's is determined by ability. The results suggest that while daughters' low body esteem impacts their self-esteem, sons are scoring similarly on self-esteem (despite their higher body esteem) as factors outside of their appearance are more impactful upon their self-esteem.

Testing of H2: Group Differences in Self-Objectification

In alignment with the literature, H2, suggesting that daughters would score significantly greater in self-objectification than sons, mothers, and fathers, was supported. No other differences between sons, mothers, and fathers were significant. It has consistently been shown that age and gender influence self-objectification, with women self-objectifying more than men (Strelan & Hargreaves, 2005), and younger adults self-objectifying more than older adults (Crawford et al., 2008; Murray & Lewis, 2014). Thus, my findings provide further support for the literature.

Testing of H3: Group Differences in Objectification of Women

Consistent with the literature, H3, hypothesising that men would objectify women significantly more than women, was supported (Hargreaves & Zurbriggen, 2021; Strelan & Pagoudis, 2018). Further analysis determined that fathers objectified women significantly more than mothers and daughters and sons objectified women significantly more than mothers. However, sons scored relatively low for objectification of women (see Table 1), with a negative score reflecting that young men were appraising women on ability over appearance. While fathers scored higher than sons, their scores still reflected lower levels of objectification of women than previously seen in the literature using the same measures. In 2005, Strelan and Hargreaves found that men were evaluating women on appearance over ability ($M = 5.46, SD = 13.33$). While this may suggest that societally, men are objectifying women less, Strelan and Pagoudis (2018) found more recently that men were still appraising women on appearance predominantly ($M = 3.38, SD = 10.92$). However, Strelan and Pagoudis (2018) collected data prior to the #MeToo Movement gaining momentum in October 2017, bringing with it increased awareness of the pervasiveness of sexual abuse and the dangers of rape culture (PettyJohn et al., 2019). Evidently, this social movement may have caused men to re-evaluate the way in which they appraise women or at the very least,

increased socially desirable responding due to greater awareness of the problematic nature of objectification.

In this study, women also objectified other women less, with daughters and mothers (see Table 1) both placing greater emphasis upon ability than previously seen in the literature ($M = 0.13$, $SD = 15.43$; Strelan & Hargreaves, 2005). It is unclear whether this decrease is reflective of societal change or socially desirable responding. Future research involving self-reports of objectification should include a social desirability scale to examine the influence of socially desirable responding.

In contrast to parents' reports, young adults perceived their mothers to objectify women significantly more than their fathers. This could potentially be explained through socially desirable responding on the behalf of mothers but not fathers. However, a more likely explanation may be that young adults spend more time with their mothers than their fathers, allowing increased opportunity to observe objectifying behaviours performed by mothers. The Australian Bureau of Statistics (2022) reports that 88% of primary carer's leave is taken by women, indeed suggesting mothers are the main caregivers of children. It is also possible that while fathers objectify women, they are less vocal in making commentary on the appearances of women, as women tend to engage in appearance-based gossip more frequently than men (Davis et al., 2018; Watson, 2012). Additionally, the measure of perceived parental objectification did not specify whether commentary was positive or negative. Given that women are likely to partake in both negative and positive gossip (Davis et al., 2018), mothers may be more likely to compliment the appearance of other women, hence increasing young adults' reports of maternal objectification of women. However, regardless of directionality, commenting upon other women's appearances reinforces the expectation of women adhering to beauty ideals.

I also suggest that self-reported objectification of women mapped specifically onto sexual objectification, with participants' rankings of the ten items in the measure illustrating evaluation based upon the separation of women's body parts and functions from them as a person (Morris et al., 2018). Contrastingly, perceived parental objectification better reflected appearance-based objectification, with the measure reporting commentary made by parents on women's appearances. As aforementioned, sexual and appearance-based objectification are not often delineated, however, these discrepancies in maternal objectification suggest that future research should better distinguish these two forms of objectification, as their impacts could potentially differ.

Testing of H4: Group Differences in Objectification of Men

No support was provided for H4's claims that women would objectify men significantly more than men. There were also no significant differences between daughters, sons, mothers, or fathers in their objectification of men. Sons had the highest scores for objectification of men (see Table 1), which was comparable to Strelan and Hargreaves' (2005) scores for men's objectification of men ($M = -7.00$, $SD = 13.95$). However, daughters and mothers (see Table 1) had much lower levels of objectification of men than previously seen in the literature ($M = -1.78$ $SD = 12.16$; Strelan & Hargreaves, 2005). This is once again suggestive of socially desirable responding or a societal change in women's objectification of men.

In contrast to self-report data, young adults perceived their mothers to objectify men significantly more than their fathers. While in alignment with my hypothesis, it is noted that similarly to perceived parental objectification of women, these results could be explained through mothers' socially desirable responding, being more present as primary caregivers, or increased vocalicity in commenting upon men's appearances. Evidently, further investigation is

required into the discrepancies between parent-reported data and young adults' perceived parental objectification.

Testing of H5: Perceived Maternal and Paternal Objectification of Women Predicting Young Adults' Objectification of Women, Moderated by Gender

H5 stated that parental objectification of women would predict young adults' objectification of women, moderated by gender so that this relationship was stronger for sons than daughters. H5 was partially supported with perceived maternal objectification of women predicting young adults' objectification of women. However, moderation did not occur as hypothesised, with low perceived maternal objectification of women protecting against daughters', but not sons', objectification of women. While these findings highlight the importance of maternal modelling for daughters, it raises questions concerning the influence of mothers upon sons and whether other sources of influence are stronger for sons.

Perceived paternal objectification of women did not predict young adults' objectification of women, providing no support for H5. While this suggests that neither sons nor daughters learn to objectify from their fathers, there appeared to be floor effects for perceived paternal objectification of women. This requires further exploration as self-reported data from fathers indicated that they objectified women the most. One reason for this discrepancy may be due to fathers reporting their own attitudinal objectification, whereas young adults' perceptions are based upon fathers' behavioural manifestations of objectification. Costello et al. (2020) describe the importance of measuring behavioural objectification however, they also necessitate the importance of measuring attitudinal objectification as these two facets of objectification may not perfectly correspond, as exemplified in these results.

Neither maternal nor paternal objectification predicted sons' objectification of women. Studies examining media influence have been able to explain 31.1% of variance in

men's objectification of women (Seabrook et al., 2019), and research into trait-level predictors explains 35.2% of variance (Bradshaw, 2020). While this cohort of sons did not possess concerning levels of objectification of women, a lack of predictive ability arising from parental influence and low explained variance from other factors leaves a high level of uncertainty regarding influences upon men's development of objectification of women.

Testing of H6: Perceived Maternal and Paternal Objectification of Men Predicting Young Adults' Objectification of Men, Moderated by Gender

H6 stated that parental objectification of men would predict young adults' objectification of men, moderated by gender so that this relationship was stronger for daughters than sons. Neither perceived maternal nor paternal objectification of men predicted young adults' objectification of men, thus providing no support for H6. However, levels of objectification of men were negligible and therefore, parental objectification as a predictor possessed little theoretical importance.

Testing of H8: Perceived Maternal Objectification of Women Predicting Daughters' Self-Objectification, Self-Esteem, and Body Esteem, Moderated by Maternal Care

H8 stated that parental objectification of women would predict daughters' self-objectification, self-esteem, and body esteem, moderated by parental care so that this relationship was stronger at low levels of care. H8 was partially supported, as perceived maternal objectification predicted daughters' outcomes however, maternal care moderated these relationships in the opposite direction to what was hypothesised. At high levels of maternal care, low perceived maternal objectification protected against self-objectification and increased self-esteem and body esteem, and high perceived maternal objectification negatively predicted daughters' self-esteem. These relationships were not significant at low levels of maternal care.

Arroyo and Andersen's (2015) findings are contradicted by these results as they suggested that the relationship between mothers' and daughters' self-objectification was stronger at low levels of care. In this study, daughters who reported low maternal care already had increased self-objectification and perceived maternal objectification did not worsen this outcome. However, these results support Miles-McLean et al.'s (2014) findings that parental influence is greater when daughters perceive a higher level of parental involvement in their lives and place higher value on their parents' opinions. While Miles-McLean et al. (2014) were examining paternal care, these results reflect that maternal care may moderate the relationship between mothers and daughters similarly.

While the results provided no support for the moderation effect proposed by Arroyo and Andersen (2015), they contribute to the literature in demonstrating that negative body talk about other women is detrimental to daughters and support my theorising that maternal objectification of women will be internalised by daughters. The impact of negative body talk between mothers and daughters about themselves is already well-established (Arroyo & Andersen, 2016; Domoff et al., 2020) however, this shows that these conversations, even when they pertain to other women, are damaging.

Testing of H8: Perceived Paternal Objectification of Women Predicting Daughters' Self-Objectification, Self-Esteem, and Body Esteem, Moderated by Paternal Care

Perceived paternal objectification of women predicted daughters' self-objectification, self-esteem, and body esteem, thus providing support for H8. However, these relationships were not moderated by paternal care, despite paternal care also having a main effect on daughters' self-objectification and self-esteem. This is suggestive of the importance of paternal objectification regardless of the father-daughter relationship quality. These results contrast with those of Miles-McLean et al. (2014), who found that at low levels of paternal care, other paternal factors, such as overprotection, no longer impacted upon daughters'

outcomes. My study instead demonstrates the influence of paternal objectification, regardless of paternal care. While Berntson et al. (2017) did not find support for their hypothesis that fathers' benevolent sexism would predict daughters' self-objectification, my study supports the notion that paternal expressions of hostile sexism, such as objectifying commentary, is indeed internalised by daughters. Evidently, more overt forms of sexism directed at other women may be easier for daughters to identify than benevolent sexism that is directed at themselves.

Limitations

Given that this study was cross-sectional, I cannot definitively determine causation in parental objectification predicting young adults' outcomes. While the results provide support for daughters learning to self-objectify and objectify women from parents' modelled behaviours, it is also possible that daughters with higher self-objectification and lower self-esteem and body esteem are more likely to report higher parental objectification.

Confirmation bias can explain this second possibility (Keery et al., 2006), as daughters with high self-objectification may recall and be more sensitive to parental commentary than daughters with lower self-objectification. While the use of young adult reports of parental behaviours allows insight into young adults' perceptions, it limits the ability to draw conclusions on parental attitudes and behaviours (Rodgers et al., 2009). However, as aforementioned, parental data may also be influenced by socially desirable responding. Consequently, to determine the presence of causation in the relationships between parental objectification and young adults' self- and other objectification, longitudinal designs are required.

Another limitation of my study was a reliance upon young adults to recruit parents to participate. Due to small samples of sons and parents, the study was underpowered to run moderation analyses using parental variables as predictors or sons' data as outcome variables.

The literature has well-documented the challenges of recruiting men, particularly older men, for psychological and health-related research (Bracken et al., 2019; Law, 2019; Ryan et al., 2019). Hence, in anticipation of such difficulties, I included measures of young adults' perceived parental objectification. These inclusions were evidently critical in gaining insight into the discrepancies between young adult and parental reports of parental objectification and are suggestive of a need for further research into the cause of such discrepancies. Despite being unable to run moderations with self-reported parental data, my study was the first to examine group differences between daughters, sons, mothers, and fathers in self-objectification and objectification of women and men.

My study was also limited in that it did not account for sexuality. It has been suggested that sexuality may play a role in experiences of self-objectification, with individuals who seek male partners perceiving higher levels of objectification from men and thus, self-objectifying to a greater extent (Moradi, 2010). Research into men's experiences of self-objectification has found that sexual minority men have higher levels of self-objectification than heterosexual men (Martins et al., 2007; Michaels et al., 2013). The literature is divided regarding the differences between lesbian and heterosexual women's experiences of self-objectification (Hill & Fischer, 2008; Kozee & Tylka, 2006). It is suggested that internalised heterosexism, described as a negative view towards one's own sexual minority identity due to living within a society founded in heteronormativity (Puckett et al., 2015), may be a unique predictor of lesbian women's self-objectification (Haines et al., 2008; Watson et al., 2015). Evidently, future research into parental influences upon young adults' self- and other objectification should consider how such effects may differ for sexual minority individuals.

It is also important to note that my study was limited to explorations of young adult outcomes for men and women, potentially failing to account for the experiences of

transgender and non-binary (TGNB) individuals who may strive for androgynous body ideals in a society that promotes gendered body ideals (Casalheira et al., 2022). While the measure of self-objectification used in this study has been validated with a TGNB sample (Casalheira et al., 2022), there is no validated measure for objectification of TGNB people, despite TGNB people's experiences of fetishization and objectification (Anzani et al., 2021). With complex factors enhancing TGNB people's experiences of self-objectification, elucidation of parental influence is necessary, alongside research into whether the predictors of objectification of women also predict objectification of TGNB people.

Future Directions

My research has demonstrated the impact of perceived parental objectification of women upon daughters' self-objectification, as well as the impact of perceived maternal objectification of women upon daughters' objectification of women. However, the existence of these relationships should be further explored using parent-reported objectification measures and a longitudinal design to determine causation.

It was noted over 20 years ago that a vast amount of parenting research has focused upon maternal factors (Bussey & Bandura, 1999). This bias towards maternal factors is still prevalent in self-objectification research, with parenting being predominantly explored in respect to mothers' and daughters' self-objectification (Arroyo & Andersen, 2015; Domoff et al., 2020). Within my study, perceived paternal objectification of women and paternal care were stronger predictors of daughters' self-objectification than maternal factors, suggesting that future research should consider all potential familial factors, rather than just maternal influence.

Given the negative impacts of self-objectification, my study highlights a need to increase parental awareness regarding the influence of objectification upon daughters' outcomes. One study has examined the efficacy of an internet-based intervention to assist

mothers foster positive body images for themselves and their daughters however, no long-term impact was achieved (Diedrichs et al., 2016). Further research should build upon this intervention for parents by incorporating knowledge regarding the influence of not only mothers' self-objectification but parental objectification of women upon daughters' self-objectification.

Future research should aim to further explore men's objectification of women, as I found that no parental factors predicted sons' objectification of women. One reason for this may be sons' decreased awareness regarding what constitutes objectification. Women experience a loss of power from being objectified or witnessing the objectification of another woman however, this is not necessarily the case for men (Davids et al., 2019; Garcia et al., 2016; Koval et al., 2019). Consequently, women may be better equipped to detect objectifying behaviours while men may not recognise or recall parental objectification due to the lack of impact it has upon themselves. Therefore, parents may indeed influence sons' objectification of women but a reliance upon sons' reports may confound this relationship.

As aforementioned, gender and sexuality should be considered in future research regarding the influence of parenting on young adults' self- and other objectification. Additionally, my research was conducted with a predominantly Western sample and to increase generalisability such research should be replicated with non-Western populations. Only two studies have examined the influence of parenting upon self-objectification cross-culturally and no study has examined parental influence upon the objectification of women cross-culturally. Crawford et al. (2008) found that Nepali women, both mothers and daughters, self-objectified to a lesser extent than their American counterparts. Additionally, Gattino et al. (2017) found that within an Italian sample self-objectification was best predicted by social influences, whereas self-objectification was best predicted by trait-level factors for a Romanian sample. I suggest that my findings regarding parental influence upon

daughters' self-objectification and objectification of women may be enhanced in collectivist cultures where the importance of family is emphasised. However, cultural beauty ideals may also impact upon this relationship.

Implications and Conclusions

My research fills a gap in examining predictors of young adults' self- and other objectification. I have highlighted the impact of parental care and parental objectification of women upon daughters' self-objectification, self-esteem, and body esteem. While no significant predictors of sons' objectification of women were found, decreased maternal objectification protects against daughters' objectification of other women. Objectification is often described as cyclical (Strelan & Hargreaves, 2005), with the objectification of women perpetuating women's self-objectification, and so on. My study demonstrates the role parents play in feeding into this cycle across generations. It is important to note that my findings suggest that it is not positive commentary that decreases daughters' self- and other objectification but a lack of commentary altogether. In conclusion, it is the role of parents to not simply reassure young women that they are beautiful and desirable, but to instead teach them to evaluate themselves and other women on attributes outside of attractiveness.

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Appendix



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This is an anonymized copy (without author names) of the pre-registration. It was created by the author(s) to use during peer-review. A non-anonymized version (containing author names) should be made available by the authors when the work it supports is made public.

1) Have any data been collected for this study already?

No, no data have been collected for this study yet.

2) What's the main question being asked or hypothesis being tested in this study?

Parents' objectification of women will be positively associated with daughters' self-objectification, self-esteem, and body esteem. This relationship will be moderated by parental care so that self-objectification is higher when parental care is lower.

Parents' objectification of men will be positively associated with sons' self-objectification, self-esteem, and body esteem. This relationship will be moderated by parental care so that self-objectification is higher when parental care is lower.

Parents' objectification of women will be positively associated with children's objectification of women. This will be moderated by children's gender so that this relationship is stronger for boys.

Parents' objectification of men will be positively associated with children's objectification of men. This will be moderated by children's gender so that this relationship is stronger for girls.

Mothers' self-objectification will be positively associated with daughters' self-objectification, self-esteem, and body esteem. This relationship will be moderated by parental care so that self-objectification is higher when parental care is lower.

Fathers' self-objectification will be positively associated with sons' self-objectification, self-esteem, and body esteem. This relationship will be moderated by parental care so that self-objectification is higher when parental care is lower.

Children's perceptions of parental objectification will be a stronger predictor of children's objectification of others, self-objectification, self-esteem, and body esteem than parents' self-reported objectification.

3) Describe the key dependent variable(s) specifying how they will be measured.

Children's self objectification measured using Self Objectification Beliefs and Behaviours Scale (Lindner & Tantleff-Dunn, 2017).

Children's objectification of males and females using adapted version of Self Objectification Questionnaire (Noll & Fredrickson, 1998).

Body esteem using Mendelson et al.'s (2001) 23-item Body Esteem Scale for Adolescents and Adults (BESAA).

Self esteem using Rosenberg's (1965) self-esteem scale.

4) How many and which conditions will participants be assigned to?

Participants will complete one of two surveys depending on whether they are a young adult aged 18 to 25 or the parent of a young adult who has completed the survey aged 18 to 25 years.

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

Linear regressions with moderation will be used to analyse data.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

Children and parent variables that cannot be matched to each other will be excluded for regressions using parental variables. Where children's perceptions of parents is used as independent variable, children's data that is not matched to parents will be used. Data that is 2 SDs outside the group's mean for a given measure (eg. Sons' objectification of women score or mothers' self-objectification) will be excluded for the respective analyses using that measure. Where children report two parental figures of the same gender (eg. Mother and step-mother) whichever one also completes the survey will be used for analyses. If both parental figures of the same gender complete the survey we will use the data of the biological parent. It is not anticipated that enough participants identifying as gender fluid or non-binary will participate so we will not be able to use this data in analyses. Parents who do not complete the one attention check will be excluded and children who do not pass both attention checks will be excluded. The attention checks will be embedded into the survey matrixes, with one within the self-objectification matrix asking all participants 'to show you are paying attention please click somewhat disagree'



and another in body esteem for young adults asking them 'to show you are paying attention please click often'.

7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

An a priori power analysis using *g* power was conducted before collecting data, with alpha of .05, power level of .80, and a medium effect size ($f^2 = .15$), a sample size of 136 is required for sufficient power (68 young adult, 68 parent).

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

There will be a positive correlation between parents' reported objectification of others and perceptions' of parents' objectification. We will conduct *t* tests to determine gender and age differences in objectification scores as secondary analyses.