Morality: Its Mediating Role in the Mental Health Outcomes of Objectifying Experiences. A Systematic Review.

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Abstract

Background: Existing literature in the field of objectification has extensively examined the correlations between a variant of objectification (e.g. sexual objectification) and a negative mental health outcome, such as depression. Whilst the research has examined various deployments of objectifying experiences and behaviour, the role of morality (i.e. shame) has not received similar investigations.

Aim: The aim of this paper is to systematically review the literature that has investigated and assessed the relationships between objectification and mental health, with specific focus on the impact of morality.

Methods: Four databases (CINAHL, PsycINFO, EMBASE and Medline) were identified and searched, for records pertaining to the research questions. Records were screened and included in this systematic review if they a) were published in a peer reviewed journal, b) were available in English language, c) consisted of adult participants. Key search terms used were '*objectif*', 'appearance focus', 'self-objectification', 'moral*', 'shame', 'dehumani?*', 'depress*', 'mood disorder*' and 'eating disorder*'*.

Results: The search yielded 3,770 articles. 31 studies were identified as meeting the inclusion criteria. A narrative synthesis was carried out. The results presented consistent findings that whilst shame has a direct relationship with negative mental health outcomes, it is often experienced as a result of objectification. Thus, this systematic review found strong evidence for the mediating role of shame between objectification and mental health outcomes.

Conclusions: Body shame in particular is a significant mediator between various types of objectification and a range of mental health outcomes. The implications of these findings regarding mental health policy and practice are addressed.

1. Introduction

1.1. Literature Review

1.1.2. Objectification

Mental disorders result in a significant economic burden across the globe (WHO, 2019). Therefore, understanding the contributing factors to the development and maintenance of mental health issues (MHIs) is of great importance (McDaid, Park and Wahlbeck, 2019). A contributing factor identified in the increasing prevalence of MHIs (depression, anxiety and disordered eating) is the concept of objectification and often times more specifically self-objectification (Grabe and Hyde, 2009). Self-objectification is a concept introduced by Fredrickson and Roberts (1997). The proposed theory of self-objectification has been defined as the internalisation of external perspectives of our own physical appearance and attributes.

Giddens (1991) determined that in the emerging modern society, bodies have transformed into ever evolving objects, open to scrutiny from the self and others. Persons are slowly defining self-identity through scrupulous self-management to ensure adherence to social norms. This sentiment is corroborated by Goffman (1959;1961), whereby the true representation of the self is becoming defined by the restrictively accepted presentation of the body. These analyses are important when considering the increasing use of social media through which objectification is experienced and observed daily (Holland et al., 2017). Existing literature has focused much of the scope on adolescent females due to the perceived vulnerable nature of this time period (Hill and Pallin, 1998; Tiggemann, 2011). However, more recent literature has broadened the scope to include males. Perhaps in part due to the increasing prevalence of eating disorders among males and potentially in relation to increasing objectification (Maine and Bunnell, 2008). Concurrently, Katz and Farrow (2000) addressed the conflicting messaging of objectification for women. Society benefits from the desirability of women but condemns sexualised behaviour as immoral. Moreover, Lijtmaer, (2010; Liss, Erchull and Ramsey, 2011; Breines, Crocker and Garcia, 2008) identified that women not experiencing objectification often feel undesirable and unattractive, this impacts mental health outcomes (MHOs). Therefore, it is possible to assume from extant literature that women receive a boost in self-esteem as a result of sexual objectification. Notably, however, this is specific to romantic relationships over valuations from strangers (Meltzer, 2020).

Whilst various forms of objectification research have been conducted, a reasonable assessment is that this field is still in its infancy (Tiggemann, 2013). Hitherto, objectification research has aimed to identify the ways in which it occurs, for example the mediating role media exposure

plays in the development and process of self-objectification (Aubrey, 2006; Vandenbosch and Eggermont, 2012). Grabe and Hyde (2009) investigated sexually objectifying media and its psychological outcomes. It was determined that self-objectification is a consequence of exposure to this media type. The scope of literature identifies the often times mediating role of objectification, especially in mental health outcomes (MHOs).

1.1.3. Objectification and Morality

Morality as a concept has evoked rather pointed questions and disputes regarding its definition (Wallace and Walker, 2020). Kupperman (2020) demonstrates that morality does not depend on ethical theory to make sense of its meaning. However, it is also acknowledged that morality is used as a means to hold ourselves and others to a set of socio-cultural standards (Benedict, 1934; Kupperman, 2020). Morality is considered an abstract concept (Zigon, 2020) due to its operationalised cultural and temporal unreliability (Brandt and Rozin, 1997; Doğruyol, Alper, and Yilmaz., 2019). Pride as a facet of morality is typically defined as acknowledging one's personal responsibility in delivering socially desirable outcomes (Mascolo and Fischer, 1995, p.66), that adhere so sociocultural norms (Kwong, 2020). Williams and DeStono (2008) identify shame as a motivator for these outcomes. Calogero (2004) investigated the effect of the male gaze and subsequently identified direct links between objectification and shame. Furthermore, the experience of shame has been extended to adolescent girls whereby Slater and Tiggemann (2002) suggested its mediating factors.

1.1.4. Objectification, Morality and Mental Health

Noll and Fredrickson (1998) were arguably the first to present empirical findings across a mediational model for a specific MHO in relation to morality. Research by Slater and Tiggemann (2002) as mentioned above, elucidated this mediating role of morality (i.e. shame) in the relationship between objectification and MHOs. Similar findings were also identified by Tylka and Hill (2004), in university aged participants. This area of objectification research has recently seen the largest increase in scope as more diverse populations are being examined (Engeln-Maddox, Miller and Doyle, 2011; Dakanalis et al., 2012; Brewster et al., 2014). Kim, Seo and Bae (2014) conducted a culture specific examination of objectification where both direct and indirect relationships between objectification, morality and MHOs were identified.

1.1.5. Gaps in Literature

Gaps in the literature have attempted to be addressed, as mentioned in section 1.1.4., an increasingly diverse set of populations have examined the variables of objectification, morality and MHOs. However, some still remain. Heterogeneity of cultures involved in this research has been addressed as a limitation across the scope of this field. Calogero (2009) aimed to address this methodological gap. A British only sample of participants was used, contrary to previous literature that was dominated by US and Australian populations, and males were included in the sample. However, this attempt to address methodological and culturally relevant gaps in the literature are not without limitations.

1.2. Current Systematic Review

In the current systematic review, objectification is not limited to the male gaze or only that of peers. It will be also addressing sexual victimisation, an underrepresented objectifying experience (Holmes and Johnson, 2017); and in terms of the self (Fredrickson and Roberts, 1997). The relationship between MHIs and shame is evidenced in extant literature, this is predicted by the dehumanising effect of self-objectification (Bevens and Loughnan, 2019).

The current systematic review has chosen not to exclude studies using eligibility criteria indicating interest in only one mental health disorder such as depression for example (Jones and Griffiths, 2015). Whilst this would be useful when conducting a relatively novel systematic review exploring the field of objectification, for this systematic review mental health issues will simply be defined as the experience of any mental health disorder that exists concurrently with objectification and the questioning of morality. During preliminary investigation into this field the MHIs in relation to objectification were identified (disordered eating and depression) and therefore incorporated in the search strategy (Appendix 4a,b). This was due to the relationship between susceptibility to internalising perceived external ideals and evaluations of the self in those with disorders pertaining to mood and body image concerns (Maier et al., 2014).

1.2.1. Rationale

Existing systematic reviews have primarily focused on the various outcomes of objectification (Jones and Griffiths, 2015; Carrotte and Anderson, 2018) and have subsequently addressed the mediating role of morality as a contribution rather than intention. Although much of the existing literature addresses this area of interest (Orth, Berking and

Burkhardt, 2006; Katz-Wise et al., 2013; Orsini, 2017), no systematic review has previously investigated its role. Additionally, previous systematic reviews have investigated only one mental health outcome, potentially limiting the scope of their results to Western countries. Therefore, it is believed that this review will be of valuable contribution to the field, as limitations pertaining to the country of origin, population sample and variant of objectification are not implemented.

1.2.2. Aims and Research Questions

The aim of this systematic review was to identify the extant research that measures the relationships between varying degrees of objectification, morality indicators (such as pride, shame and guilt), and mental health outcomes. Existing literature has often only examined and discussed the relationship between two of these variables. Therefore, identifying that which investigates all three is of valid contribution to the field of objectification. Moreover, the practical application of this research and review to mental health policy and practices is notable, as identifying the links between factors and outcomes introduces various new avenues of mental health promotion, prevention and intervention; especially when considering the populations, the research indicates are most affected by these relationships. The aforementioned systematic reviews conducted within the field of objectification have primarily extrapolated data pertaining to the relationship between objectification and depression.

1. How are feelings of immorality measured in those who have experienced objectification?
2. How do feelings of immorality impact on mental health of people who have experienced objectification?
3. Are there gaps in the evidence base on the relationship between feelings of immorality and the experience of objectification?

2. Methods

Prospero and the Cochrane databases of systematic reviews were searched prior to conducting this systematic review to ensure that a similar systematic review had not previously been carried out. This allowed for the current Sr to be considered a valuable contribution to the field regardless of its outcomes.

2.1. Ethical Approval

The approval of the Research Ethics Committee was not necessary because no primary data were obtained from the participants. However, the current systematic review was initially intended as a qualitative research project. Primary data would have been collected through semi-structured interviews, and Grounded Theory Analysis (Glaser and Strauss, 1967) would have been performed. An ethical application (Appendix 1) and required accompanying documents pertaining to this project were completed accordingly (Appendix 2 and 3).

2.2. Search Procedures

After conducting a preliminary search on Google Scholar to determine the ways in which the chosen topics had been discussed in previous research, key search terms were identified, and appropriate databases were selected. Web of Science had initially been included. However, after conducting a trial run, Medical Literature Analysis and Retrieval System Online (MEDLINE) was highlighted as a more appropriate database to use for the research being investigated. Therefore, the following electronic databases were used in the identification of relevant papers: the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Excerpta Medica dataBASE (EMBASE), and Psychological Information Database (PsycINFO), Medical Literature Analysis and Retrieval System Online (MEDLINE). The final search using these databases was conducted on Tuesday 16th June 2020.

The search strategy (Appendix 4a,b) for this systematic review combined variations of phrasing regarding the concepts of objectification, morality and mental health. Specific terms were included or excluded dependent on their relevance. For example, psychosis and personality disorders were not included as outcomes of objectification and morality ratings in this systematic review. This is due to limited extant evidence and the increasing incidence and prevalence of mood disorders (Hidaka, 2012) and eating disorders globally (Makino,Tsuboi and Dennerstein, 2004). Therefore, these terms were not included in the search strings pertaining to mental health. The term adult in this review is defined by those aged eighteen years old and above. Cultural differences in the defined ending of adolescence and beginning of adulthood were not included (Arnett and Taber, 1994; Degner, 2006). This is of important consideration when conducting a systematic review to ensure consistency across the measures (Gopalakrishnan and Ganeshkumar, 2013). Therefore, the identification of studies involving only adult participants was enhanced through the use of a search string that covered typical terms used to define adulthood in studies, per previous systematic reviews. Gender was not determined as a criterion for the search strategy as identified in the introduction,

much of the previous literature pertains to females (Calogero, 2009) and thus studies inclusive of all genders were searched for.

Key terms used were '*objectif*', 'appearance focus', 'self-objectification', 'moral*', 'shame', 'dehumani?*', 'depress*', 'mood disorder*' and 'eating disorder*'.* The aforementioned key terms were selected based upon their relevance and reliability in identifying related studies. Relevant studies identified in the reference list of returned results chosen for this systematic review were also included. An example of the search strategy adapted for Ovid host databases such as EMBASE was conducted as follows:

Table 1. Main categories of search terms

1.	(moral* or sin* or immoral* or ethic* or dehumani#* or value* or shame or guilt or blam*)
2.	((sexual* or self or self- or perceived or beauty) adj3 (attract* or objectif* or object* or perception))
3.	(appearance focus* or perceived beauty or body image issue* or objectif*)
4.	or/2-3
5.	(depress* or anxi* or emotional disorder* or mental instability or mood disorder* or affective disorder* or eating disorder* or anorexi* or bulimi*)
6.	mental health
7.	mental ill-health
8.	mental ill health
9.	(mental adj2 (disorder* or problem* or condition*))
10.	(self esteem or self-esteem)
11.	(well-being or wellbeing)
12.	or/5-11
13.	(adult* or adolescen* or student* or (18 year* and over) or (18 year* and older) or (18 and over) or (youth) or (young people) or (young person*))
14.	and/1, 4, 12, 13
15.	Humans or people
16.	14 and 15

2.3. Study Screening and Selection

Initially, papers were screened by their title and their abstract, this was conducted by the first reviewer (JG). Subsequently, a random 10% of titles and abstracts were screened to ensure this process was carried out systematically, this was conducted by the second reviewer (AF). Both the first

and second reviewers are MSc Global Mental Health students. Discrepancies or conflicts were planned to be resolved through discussion. If a resolution could not be met through these discussions a further review was agreed to and would be conducted by the third reviewer (ER). If resolution was still not possible the authors of the paper in question would be contacted. Studies that were determined as relevant to the aims of this systematic review progressed to the eligibility process. Full texts were then reviewed by the first reviewer (JG) to determine inclusion and a final review of the chosen studies was conducted by the second reviewer (AF). These processes ensured that assessments made regarding inclusion and exclusion were robust and potential biases were reduced.

All identified studies were screened on the basis of predefined inclusion and exclusion criteria for relevance.

Inclusion criteria:

- Must discuss the experience of feelings related to morality
- Must discuss objectification
- Must discuss aspects of diagnosable mental health disorders excluding personality disorders
- Studies from peer reviewed journals
- Participants of all ethnicities
- Written in English language
- In studies that do not report ages of population separately, at least 70% of participants must be aged over 18

Exclusion criteria:

- Non-human studies
- Grey literature (such as dissertations)
- Studies on children or adolescents under the age of 18
- Proportion of adult participants unclear, or <70% of sample if not reported separately
- Full paper not available in English
- Full text unavailable
- Abstract or conference proceedings
- Qualitative methodology and analysis

Studies included in this systematic review were required to meet the following predetermined inclusion and exclusion criteria: if a) they were published in peer reviewed journals, b) the full text was available in English language, c) morality, objectification and mental health were discussed, and d) a minimum of 70% of participants involved in the studies were 18 years and older. Studies were excluded on the basis of their methodological experimental design if qualitative. Publication date and timeframe were not considered necessary inclusion or exclusion criterion, this was decided on the basis that research regarding objectification appears to be in its infancy and thus limiting the timeframe may exclude early pieces of work. Therefore, results were collected from databases date of

inception to the date final searches were conducted (Thursday 16th June 2020). This allowed for any socio-cultural changes in attitudes over time towards objectification, morality and mental health to potentially be examined.

2.4. Data Extraction and Analysis

Data extraction of the studies chosen for inclusion was conducted by the first reviewer (JG), the second and third reviewers did not participate in this process. Data extraction methods involved reviewing the individual chapters of the chosen papers and highlighting key information across the studies identified. The following data was extracted: a) publication date, b) author, c) country study was conducted, d) study design (e.g. survey, interview, cohort, observational), e) sample size, f) gender, g) population, h)measure of objectification, i) measure of morality, j) measure of mental health k) quality assessment rating received (Appendix 5) and l) main findings of the study. In synthesising the extracted data, we used a narrative (descriptive) analysis only to report the findings. This review did not involve a meta-analysis of any extracted data.

2.5. Quality Assessment

Quality assessment was carried out by the first reviewer (JG), and the second reviewer (AF). Any conflicts encountered would be resolved by calculating inter-rater agreement of scores for the chosen studies. The quality of studies chosen for inclusion had to be evaluated, thus, the chosen quality assessment tool was the Standard Quality Assessment Criteria for Evaluating Primary Research Papers from a Variety of Fields (SQAC-VF, Kmet, Lee and Cook, 2004). As studies included in this systematic review were quantitative in design, the checklist for quality assessment of quantitative studies using this tool appeared most reliable. This was determined as the development of Kmet et al., (2004) quantitative assessment method considered that not all quantitative research consists of randomised control trials. Moreover, as the aforementioned inclusion and exclusion criteria did not specify study design, a risk of bias tool that encompassed a variation of designs was more useful. Studies were rated on fourteen criteria with a maximum score of twenty-eight. Criteria were either marked as ‘Yes’ = 2, ‘Partial’ = 1, ‘No’= 0 or n/a if not applicable. The summary score was calculated by taking the total score given across the criteria for each paper and dividing it by the total possible score. Each item rated as n/a was doubled to produce a numerical score, for example, three n/a ratings totalled six points. This figure would be deducted from the maximum possible score of 28. Thus, studies were often rated out of a variety of total scores. Examples of some items included in this assessment are ‘Study design evident and appropriate?’ and “Outcome and (if applicable) exposure measure(s) well defined and robust to measurement/misclassification bias? Means of assessment reported?’. The development of the SQAC-VF did not include guidelines for ranking

quality scores. A means of evaluating inter-rater reliability was provided and thus, determining an agreed upon minimum rating for inclusion of studies was possible. For this systematic review studies were not required to meet such a rating to be eligible for inclusion. However, a score was agreed upon by the first and second reviewers to extrapolate study quality information. For high quality studies, a minimum quality rating of 0.70 was required. Studies included that did not meet this requirement were considered low quality. Increasing the conservative rating for determining high quality studies allowed for more identification of perhaps more rigorous research. Quality ratings are presented in Table 3.

3. Results

3.1. Study Selection Results

The databases cumulatively retrieved 4,349 results initially. However, once all results were transferred correctly, the electronic removal of duplicates was carried out and 3,770 results remained. It was noted that not all duplicates had been removed by this process and were subsequently removed throughout the following processes. This initial step allowed for titles and abstracts of all remaining results to be reviewed for relevancy and appropriateness. Abstracts that indicated a discussion of relevant topics identified the studies in which the full text would be reviewed. This screening process identified the final set of papers to be included in this review on the basis that they met the predetermined inclusion and exclusion criteria of this systematic review. At this stage, 118 papers were included in the full text review and 31 were found to meet eligibility criteria, a numerical breakdown of this is evidenced in Figure 1.

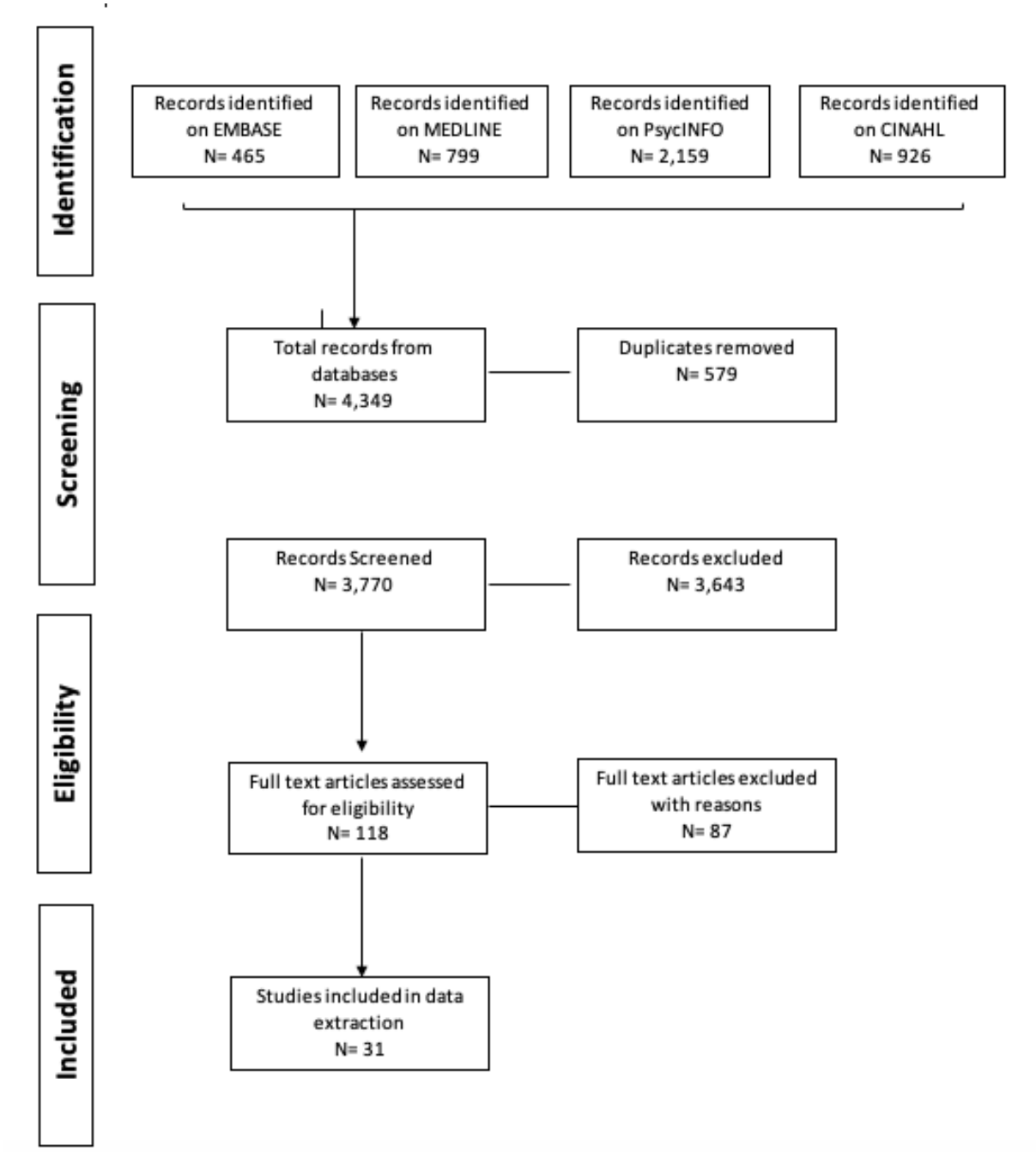

Figure 1. Flowchart depicting the numerical breakdown of the screening and selection process

Of the 87 papers that were excluded during full text review, twenty-nine papers were removed due to there not being an adequate mental health measure explicitly used (three examples of this are: McKinley, 1999; McKinley, 2006a, 2006b). Five papers were removed as their studies were qualitative in methodology. Two studies were removed for investigating a mental health condition not recognised by clinical diagnostic materials such as the DSM-5 and ICD-10 (Gendron and Lydecker, 2016; Ertl et al., 2018; APA, 2013; WHO, 1993). One study did not differentiate between the measure

used for morality and mental health and was therefore eliminated (Huebner and Fredrickson, 1999). Four studies were removed as the full text version was unavailable (Maine and Olfman, 2009; Jankauskiene and Pajaujiene, 2012; Prunas et al., 2015; Stoltenberg, Sullivan and Gervais, 2017). A further eleven studies were eliminated during the eligibility screening process as there was no explicit measure of objectification (for example, Slater and Tiggemann, 2006; Sanchez and Kwang, 2007; Kluck, 2010; Ferreira et al., 2018; Woodward, McIlwain and Mond, 2019). Two studies were removed as they did not include a measure for morality (Langdon and Dennee-Sommers, 2010; Brewster et al., 2019). Three papers were not considered for inclusion as their study involved evaluating the construct validity and reliability of new scales introduced such as 'Fat Talk' proposed by Clarke, Murnen and Smolak, (2010). Whilst this measure and evaluation of psychometric tests are of valuable contribution to the field of objectification, in that they increase the robustness of measures implemented, this was not relevant to the aims of this systematic review. For the 31 papers identified as meeting the inclusion criteria extracted data can be found tabularised with an accompanying summary in Table 2.

Table 2. Characteristics of the studies included in this review

Year	Author	Country	Study Design	N	Gender	Population	Objectification Measure	Morality Measure	Mental Health Measure	Main Findings
1998	Noll and Fredrickson	USA	Cross-sectional	S1-93, S2-111	Female	University Students	SOQ	BSQ	EAT-40	Hypotheses that body shame would mediate the relationship between self-objectification and disordered eating were supported. This result was statistically significant ($p<0.01$). the same result was found across both samples.
2001	Tiggemann and Slater	Australia	Cross-sectional	101 (50-former dancers, 51-students)	Female	Community	SOQ, OBCS-Surv	OBCS-BSH	EAT-26	Identified that an indirect relationship existed between self-objectification and disordered eating through body shame. Beta coefficient between body shame and outcomes for former dancers was 0.40, for non-dancers it was 0.46. Both results were significant ($p<0.05$).
2004	Tiggemann and Kuring	Australia	Cross-sectional	286 (115-men, 171-women)	Mixed	University Students	SOQ, OBCS-Surv	OBCS-BSH	EDI, BDI	The mediated indirect relationship of surveillance and disordered eating through body shame was identified as being statistically significant on all pathways for both men and women ($p<0.05$ at least).

Year	Author	Country	Study Design	N	Gender	Population	Objectification Measure	Morality Measure	Mental Health Measure	Main Findings
2005	Calogero	USA	Cross-sectional	209	Female	Clinical Sample	SOQ	OBCS-BSH, SATAQ-3	EDI-DT	Eating disorder symptomology was most strongly correlated with body shame r=0.44. Regression equations were conducted to test the mediating role of body shame between objectification and disordered eating. The beta coefficient for body shame and disordered eating was B=0.42, this result was statistically significant.
2005	Greenleaf	Australia	Cross sectional	394	Female	Community	OBCS-Surv	OBCS-BSH	EAT-26	Hierarchical regression was conducted to determine the mediating effects of morality (body shame) on outcomes. For the younger group beta coefficient was reduced to B=0.190 when body shame was introduced as a mediator. For the older group it was reduced to B= 0.173 determined that body shame was a partial mediator of disordered eating outcomes for self-objectification.
2005	Moradi, Dirks and Matteson	USA	Cross sectional	212	Female	University Students	OBCS-Surv	OBCS-BSH, SATAQ	EAT-26	Investigated the role of body shame as a mediator between body surveillance and disordered eating. Results were statistically significant for this indirect relationship ($p<0.001$).

Year	Author	Country	Study Design	N	Gender	Population	Objectification Measure	Morality Measure	Mental Health Measure	Main Findings
2006	Greenleaf and McGreer	USA	Cross Sectional	185 (115 active, 70 sedentary)	Female	University Students	OBCS-Surv, SOQ	OBCS-BSH	EAT-26	Results indicated that regardless of physical activity or objectification levels body shame acted as mediator for disordered eating outcomes. Evidenced as self-objectification lost significance as a predictor of disordered eating when body shame was included in regression analyses. As seen in active women whereby body shame had a p value of 0.045 and self-objectification had a p value of 0.259. similar results were found for sedentary women (shame,
2006	Kozee and Tylka	USA	Cross Sectional	377 (181 lesbian ,196 straight)	Female	University Students	ISOS, OBCS-Surv	OBCS-BSH	EAT-26	Results indicated that the role of interpersonal sexual objectification on disordered eating was fully mediated by body surveillance (objectification measure, $p<0.05$) and body shame (morality measure, $p<0.00$). These results were significant. Additionally, the relationship between body surveillance and disordered eating was fully mediated by body shame ($p<0.001$). These findings were consistent across both heterosexual and homosexual women.
2007	Martins, Tiggemann and Kirkbride	Australia	Cross Sectional	Study 1- 201 (98 homo-sexual 103 hetero sexual)	Male	Community	SOQ, OBCS-Surv	OBCS-BSH	EDI-DT, DM, BD	The results for homosexual men indicated that body shame acted as mediator between self-objectification and eating disorder measures. Introduction of body shame reduced self-objectification beta coefficient (0.19), indicating that without body shame, the relationship between self-objectification and outcomes was not significant.

Year	Author	Country	Study Design	N	Gender	Population	Objectification Measure	Morality Measure	Mental Health Measure	Main Findings
2007	Moradi and Rottenstein	USA	Cross Sectional	177	Female	Community-Deaf	OBCS-Surv	OBCS-BSH, SATAQ	EAT-26	Results found that body surveillance had an indirect link with eating disorder behaviour through the mediating factor of body shame. This result was statistically significant ($p<0.05$).
2007	Szymanski and Henning	USA	Cross Sectional	217	Female	Community	OBCS-Surv, SOQ	OBCS-BSH	SDS	The regression analyses found significant results for self-objectification and body shame mediating the relationship predicting depression as as outcome ($p<0.001$).
2009a	Calogero	UK	Cross Sectional	252 (139 women)	Mixed	University Students	SOQ, OBCS-Surv	OBCS-BSH	EDI-DT, BD, Bulimia	For women correlations between objectification measures and the intervening and outcome measures were positive. However, only the relationships between objectification measures and body shame were significant with p values of 0.001. for men, correlations were negative and positive with less significant results. The relationship between self-objectification and disordered eating was the weakest relationship for both men and women (0.6 and 0.12 respectively). results indicated that shame was a necessary mediator.

Year	Author	Country	Study Design	N	Gender	Population	Objectification Measure	Morality Measure	Mental Health Measure	Main Findings
2010	Chen and Russo	USA	Cross Sectional	Study 1- 360 Study 2- 278	Mixed	University Students	OBCS-Surv	OBCS-BSH	CES-D, BDI-II	Investigated the mediating effect of body shame on depressive symptoms. Statistically significant results ($p<0.001$) were found for both samples. Sample 1 B=-.52, sample 2 B=0.48. Results showed that body shame fully mediated the relationship between objectification measures and depression for women and men alike. The magnitude of these relations, however, were smaller for men.
2010	Rolnik, Engeln-Maddox and Miller	USA	Cross Sectional	127	Female	University Students	OBCS-Surv	OBCS-BSH	EAT-26	Results indicated that body shame partially mediated the relationship between self-objectification and eating disorder behaviours. This result was statistically significant ($p<0.05$).
2010	Wiseman and Moradi	USA	Cross Sectional	231	Male	Community - Homo-sexual	OEQ, OBCS-Surv	OBCS-BSH, SATAQ	EAT-26	Findings supported that body surveillance was indirectly related to eating disorder symptomology through the mediating effect of body shame (beta coefficient: 0.32).

Year	Author	Country	Study Design	N	Gender	Population	Objectification Measure	Morality Measure	Mental Health Measure	Main Findings
2011	Calogero	UK	Cross Sectional	Study 1- 225 Study 2- 85	Female	University Students	ISOS, OBCS-Surv	OBCS-BSH, BIGSS	EDE-Q	Investigated the role of body guilt as opposed to just body shame. The beta coefficients on the path analyses between objectification and body shame and body guilt individually were similar (0.38 and 0.35 respectively). Whilst both guilt and shame have positive results, body shame accounted for greater influence over the dependent measure of disordered eating (B=0.57). this result was also statistically significant.
2011	Carr and Szymanski	USA	Cross Sectional	289	Female	University Students	ISOS, SES, OBCS-Surv	OBCS-BSH	CES-D PAI-AP, PAI-DP	Investigated partial mediation of sexual objectification (SO) and substance abuse outcomes. Mediating factors were self-objectification, body shame and depression. SO was found to be directly related to outcomes (B-0.52) and indirectly through mediators. These results were statistically significant ($p<0.05$).
2011	Engeln-Maddox, Miller and Doyle	USA	Cross Sectional	380	Mixed	Community - Sexual Orientation	OBCS-Surv, ISOS	OBCS-BSH	EAT-26	Findings show that for all groups (heterosexual women and men, and homosexual women and men, the correlations between body shame and disordered eating were statistically significant with some having a stronger effect size ($r=0.65$, $r=0.36$, $r=0.33$, $r=0.47$, respective to the above listing). Homosexual women and men and heterosexual men all indicate weaker relationships than heterosexual women for this path. All models showed path analyses indicative of the relationship between objectification measures, body shame and outcomes.

Year	Author	Country	Study Design	N	Gender	Population	Objectification Measure	Morality Measure	Mental Health Measure	Main Findings
2011	Tolayma t and Moradi	USA	Cross Sectional	118	Female	Community	OBCS-Surv, ISOS	OBCS-BSH, SATAQ	EAT-26	Contrastingly to previous research this mediation model did not find a significant result for the path analyses between surveillance and disordered eating, through mediating effect of body shame.
2012	Dakanal is et al.	Italy	Cross Sectional	125 homo-sexual, 130 hetero-sexual	Male	University Students	OBCS-Surv	OBCS-BSH	EDI-II-DT, DM, Bulimia	Results indicated that homosexual men reported a stronger relationship between body surveillance and disordered eating (r=0.700; heterosexual men, r=0.180). In both groups' correlations between body shame and disordered eating were statistically significant (p<0.001; homosexual men, r=0.670; heterosexual men, r=0.604). For homosexual men the path between objectification measures and outcomes is partially mediated by body shame. For heterosexual men this path is fully mediated by body shame.
2012	Tiggema nn and William s	Australi a	Cross Sectional	146	Female	University Students	OBCS-Surv, SOQ	OBCS-BSH	EDI, SDS	Findings suggest that there is a mediational effect of body shame on surveillance and disordered eating outcomes. A positive path coefficient was identified (0.35) for disordered eating mediated by body shame, whereas depression had negative beta coefficient (-0.14).

Year	Author	Country	Study Design	N	Gender	Population	Objectification Measure	Morality Measure	Mental Health Measure	Main Findings
2014	Brewster et al.	USA	Cross Sectional	316	Female	Community - Bisexual	ISOS, OBCS-Surv	OBCS-BSH	EAT-26	The correlations identified between the measures of OBCS-Surv, SATAQ, OBCS-BSH and EAT-26 were all positive and statistically significant. Correlations ranged between 0.48-0.67. r=0.5 was considered a large effect in this study. This research also investigated the impact of discrimination and this was found to be strongly related to SATAQ scores. Most hypotheses were supported, and shame was identified as a mediating factor for disordered eating.
2014	Kim, Seo and Bae	Korea	Cross Sectional	562	Female	University Students	OBCS-Surv	SATAQ-I, OBCS-BSH	EAT-26	Findings indicated that body shame mediated the indirect relationship between body surveillance and disordered eating (beta coefficient B=0.18). this result was considered to be significant.
2015	Jackson and Chen	China	Cross Sectional	3,161 2144 women, 1017 men)	Mixed	University Students	OBCS-Surv	OBCS-BSH	EDDS	Results indicated that compared to initial testing, follow up measures indicated that only body shame had a unique impact on eating disorder behaviours ($p<0.001$) for both men and women.

Year	Author	Country	Study Design	N	Gender	Population	Objectification Measure	Morality Measure	Mental Health Measure	Main Findings
2015	Velez, Campos and Moradi	USA	Cross Sectional	180	Female	Community - Latina	ISOS, OBCS-Surv	OBCS-BSH	EAT-26, CES-D	Much like previous research a positive indirect link was identified between sexual objectification and disordered eating through shame. However, the mediating role of this variable was only found to be partial.
2016	Tan et al.	Australia	Cross Sectional	424 (204-experimental group, 220 control group)	Female	Community	SOQ, OBCS-Surv	SATAQ-3, OBCS-BSH	EAT-26	Significant indirect effects were found for the relationship between internalisation and body surveillance on disordered eating through the mediating factor of body shame for the Caucasian and Higher Western Culture Identification populations ($p<0.001$). Similar results were not found for the Low Western Cultural Identification group.
2017	Holmes and Johnson	USA	Cross Sectional	389	Female	University Students	OBCS-Surv, ISOS	OBCS-BSH	EAT-26	Results supported hypotheses that body shame would mediate the relationship between sexual victimisation (an extreme form of sexual objectification) and disordered eating outcomes. This result was statistically significant ($p<0.05$). unlike other variations of sexual objectification sexual victimisation does not have a statistically significant relationship with body shame concerning direct pathways. Even when accounting for everyday objectification experiences, body shame is a significant mediator between sexual victimisation and disordered eating outcomes.

Year	Author	Country	Study Design	N	Gender	Population	Objectification Measure	Morality Measure	Mental Health Measure	Main Findings
2018	Kilpela et al.	USA	Cross Sectional	285	Female	University Students	OBCS-Surv	OBCS-BSH	EDE-Q	Results from cross-lagged panel analyses body shame mediated the indirect relationship between body surveillance (objectification measure) and eating disorder symptoms (p=0.002), maintaining a signification association.
2018	Mehak, friedman and Cassin	Canada	Cross Sectional	82	Female	University Students	OBCS-Surv	OBCS-BSH	BES	Non-parametric boot-strapping procedures were used to identify the mediational properties of body shame in the indirect relationship between self-objectification and binge eating behaviours. R squared value was 0.39, indicating the variance accommodated for by the mediating variable.
2018	Schaefer et al.	USA	Cross Sectional	808	Female	University Students	OBCS-Surv	OBCS-BSH	EDE-Q	Results indicated that for white women body shame only partially mediated the relationship between surveillance and disordered eating, whereas it fully mediated the relationship for Hispanic women. Body shame did not mediate this relationship for Black women. However, for all participant groups the relationship between body shame and disordered eating was significant and coefficients ranged from 0.61-0.71.
2020	Szymanski	USA	Cross Sectional	498	Female	University Students	ISOS, OBCS-Surv	ESS, CDS-IS	CES-D	Found that shame moderated direct effects of sexual objectification. The strongest correlations were found between shame and depression.

Abbreviations:
OBCS- Objectified Body Consciousness Scale; OBCS-BSH- Body shame subscale of OBCS; OBCS-Surv- Surveillance subscale of OBCS; EDDS- Eating Disorder Diagnostic Scale; SATAQ- Sociocultural attitudes towards appearance questionnaire; EDI- Eating Disorder Inventory (DT- Drive for Thinness, Bulimia, DM- Drive for Muscularity, BD- Body Dissatisfaction; SATAS-I- Sociocultural attitudes towards appearance scale, internalisation subscale; EAT-26- Eating Attitudes Test; ISOS- Interpersonal Self Objectification Scale; OEQ- Objectification Experiences Questionnaire;; CES-D- Centre for Epidemiologic Studies Depression Scale; PAI- Personality Assessment Inventory (AP- Alcohol Problems, DP- Drug Problems); EDE-Q- Eating Disorder Examination Questionnaire ; BIGSS- Body Image Guilt and Shame Scale; BDI-II- Beck Depression Inventory; BSQ- Body Shame Questionnaire; SOQ- Self Objectification Questionnaire; BES- Binge Eating Scale; BSQ- Body Shame Questionnaire; SDS- Self-Rating Depression Scale; ESS- Experience of Shame Scale; CDS-IS- Coping with Discrimination- Internalisation Subscale;

Table 3. Quality Assessment Scores for included studies

Author	**Quality Score /1**
Noll and Fredrickson (1998)	0.86
Tiggemann and Slater (2001)	0.77
Tiggemann and Kuring (2004)	0.86
Calogero (2005)	0.83
Greenleaf (2005)	0.82
Moradi, Dirks and Matteson (2005)	0.91
Greenleaf (2006)	0.86
Koze and Tylka (2006)	0.68
Martins, Tiggemann and Kirkbride (2007)	0.77
Moradi and Rottenstein (2007)	0.82
Szymanski and Henning (2007)	0.95
Calogero (2009a)	0.90
Chen and Russo (2010)	0.86
Rolnik, Engeln-Maddox and Miller (2010)	0.86
Wiseman and Moradi (2010)	0.86
Calogero (2011)	0.79
Carr and Szymanski (2011)	0.86
Engeln-Maddox, Miller and Doyle (2011)	0.95
Tolaymat and Moradi (2011)	0.73
Dakanalis et al., (2012)	0.95
Tiggemann and Williams (2012)	0.77
Brewster et al., (2014)	0.95
Kim, Seo and Bae (2014)	0.73
Jackson and Chen (2015)	0.82
Velez, Campos and Moradi (2015)	0.77
Tan et al., (2016)	0.96
Holmes and Johnson (2017)	0.77
Kilpela et al., (2018)	0.77
Mehak, Friedman and Cassin (2018)	0.59
Schaefer et al., (2018)	0.95
Szymanski (2020)	0.77

3.2. Study Characteristics

All studies chosen for inclusion in this systematic review were published after 1998, this was not through limiting the search strategy or inclusion criteria but pertains to the fact that this field of research began with work by Noll and Fredrickson (1998). Thus, any evidence prior to this date may perhaps have constituted of theoretical or qualitative arguments. Only one study included did not use cross sectional methodologies, Tan et al., (2016) conducted research using an experimental between subject's design. Of the 31 papers included, 23 were conducted with only female participants. Three studies included only male participants (Martins, Tiggemann and Kirkbride, 2007; Wiseman and Moradi, 2010; Dakanalis et al., 2012). Five studies recruited both male and female participants (Tiggemann and Kuring, 2004; Calogero, 2009; Chen and Russo, 2010; Engeln-Maddox, Miller and Doyle, 2011; Jackson and Chen, 2015) Regarding the populations targeted, various sexualities were investigated lesbian (Kozee and Tylka, 2006), bisexual (Brewster et al., 2014); gay men (Martins, Tiggemann and Kirkbride, 2007; Wiseman and Moradi, 2010; Dakanalis et al., 2012); mixed sexual orientations (Engeln-Maddox, Miller and Doyle, 2011). Eleven studies were conducted in community populations; nineteen studies were conducted in university populations and the remaining study was conducted using a clinical sample (Calogero, 2005). Nineteen studies were conducted in the USA; six studies were conducted in Australia; two studies were conducted in the UK; single studies were conducted in the following countries: Korea (Kim, Seo an Bae, 2014), Italy (Dakanalis et al., 2012), China (Jackson and Chen, 2015) and Canada (Mehak, Friedman and Cassim, 2018). Further study characteristics including sample size, main findings of individual studies and measures for objectification, morality and mental health are presented in further detail in Table 2.

3.3. Measures of Objectification

A number of tests were identified as being administered to participants that measure objectification. For most studies included in this systematic review a mixture of tests were implemented with the most common being the Sexual Objectification Questionnaire (SOQ), Objectified Body Consciousness Surveillance Subscale (OBCS-Surv), and the Interpersonal Self Objectification Scale (ISOS). Whilst the OBCS-Surv measure was used as the main test of objectification included studies, SOQ was used alone for only two studies (Noll and Fredrickson, 1998; Calogero, 2005). Schaefer et al., (2018) used only the OBCS-Surv subscale to measure objectification, this test was developed and introduced by McKinley and Hyde (1996) and components of this test are scored on a 7-point Likert scale. This scale ranges from 1 (strongly disagree) to 7 (strongly agree) and assessed the degree in which individuals observe themselves from an outside perspective. Examples of items used in this subscale are 'I think more about how my body feels than how my body looks' and 'I rarely worry about how I

look to other people'. Several studies that were conducted in Non-Western countries utilised the OBCS-Surv measure, indicating its cross-cultural validity (Kim, Seo and Bae, 2014).

3.4. How is morality measured?

As answer to research question 1, a variety of measures were used by researchers to evidence the experience of shame and or guilt surrounding objectifying experiences. Shame and guilt have been identified as primary feelings conceptualising morality (Tangney, Stuewig and Mashek, 2007) remaining cross-culturally significant (Bedford and Hwang, 2003). Manion (2002) suggested that the feeling of shame can be elicited by the most minor of moral wrongdoing. Thirty studies in this systematic review used the Objectified Body Consciousness Body Shame Subscale (OBCS-BSH). Only one study (Noll and Fredrickson, 1998) used the Body Shame Questionnaire (BSQ) alone. This questionnaire asks respondents to rate 18 items on a 5-point Likert scale, ranging from 1 (not at all) to 5 (extremely), higher scores reported suggests a greater deal of shame experienced. An example of items used include 'I wish I were invisible'. The most widely used measure of morality (i.e. shame), is the OBCS-BSH measure. This scale was also measured on a 7-point Likert scale with the same ranges. Examples of items assessed on this scale are 'When I'm not exercising enough, I question whether I am a good enough person', and 'When I'm not the size I think I should be, I feel ashamed'. As with the aforementioned measures, a higher score indicates a higher level of body shame. For these measures internal consistency reliability coefficients were acceptable within their respective studies, similar evaluations were indicated by Moradi and Varnes (2017).

3.5. What is the interaction between morality and mental health outcomes?

All 31 studies included in this systematic review discussed the relationship between morality measures (i.e. shame) and MHOs. The MHOs examined in these studies were depression (measured most frequently by Beck's Depression Inventory (BDI, Beck, Steer and Brown, 1996) and Centre for Epidemiologic Studies Depression Scale, (CES-D, Radloff, 1977)); and disordered eating behaviours and attitudes (measured most frequently by Eating Attitudes Test (EAT-26, Garner and Garfinkel, 1979), Eating Disorder Inventory (EDI-II, Garner, 1991) and Eating Disorder Examination Questionnaire (EDE-Q, Fairburn, 2008)). The main findings for each study are presented in Table 2. There is notable consistency across most of the studies included, that suggest in most instances a direct correlation between feelings pertaining to morality and negative MHOs. Of notable mention is the research conducted by Noll and Fredrickson (1998) where body shame was identified as an important mediating factor in the relationship between self-objectification and disordered eating. Similar findings were found for almost all of the included studies (for example, Tiggemann and

Kuring, 2004; Calogero, 2009; Mehak, Friedman and Cassin, 2018; Szymanski, 2020). Szymanski (2020) identified that shame behaved as moderator for the direct effects of sexual objectification, which was found to be related to depressive symptomology. Furthermore, within this research the strongest correlation was identified between shame and depression. Disordered eating was determined as a negative MHO in 27 of the 31 studies included. Only one study examined the relationship between substance abuse as a negative mental health outcome and measures of objectification such and shame and surveillance (Carr and Szymanski, 2011).

Across all studies reviewed, research question 2 was adequately answered. The research evidenced that feelings of morality are shown to have a significant impact on determining negative MHOs. This is further supported by research addressing potential variances in outcomes across differing population samples (e.g. sexual orientation, gender and ethnicity; Schaefer, 2018). Naturally, there were some studies that produced contradictory evidence in the relationship identified between morality and MHOs. Although limited in number, they are of important note. Rolnik, Engeln-Maddox and Miller (2010) found strong predictions could be made from sexual objectification and body surveillance scores to indicate disordered eating outcomes, for this research at least body shame was not required. However, as the relationship between body shame and objectification measures such as surveillances are so positively correlated, it is difficult to determine the influence of any confounding variables on these contradictory findings.

4. Discussion

4.1. Summary of Results

Most if not all of the studies included in this review found significant relationships between various types of objectification and negative mental health outcomes (e.g. depression, disordered eating and substance abuse). The consistency of the evidence found may be in part due to the ways in which factors are operationalised, the measures involved, and the populations included. Whilst similar results are found across varying populations (gender, ethnicity, sexual orientation), differences are noted in the extent to which certain factors are experienced. Across the studies included in this systematic review, higher reported levels of objectification were related to increased negative mental health outcomes. Additionally, the main reported findings that indicate body shame (and feelings associated with morality) mediates the relationship between objectification and MHIs (Velez, Campos and Moradi, 2015; Tan et al., 2016) is consistent with existing literature. Whilst determining a causal relationship between factors is limited in its scope at present, it was identified in research reviewed that the mediating factor of body shame, typically, reduces with age (Hoare et al., 1993; Greenleaf, 2005; Szymanski and Henning, 2007). The differences in outcomes across gender were not

particularly noteworthy. Previous literature suggests that women are more susceptible to objectifying experiences (Saguy et al., 2010) and thus, the potential negative outcomes associated. However, whilst this research indicated that the correlations between objectification and negative outcomes were stronger than for men, the pathways and interactions were for the most part indistinguishable. Some variances reported between gender of participants were that the temporal stability of outcomes differs between males and females (Jackson and Chen, 2015); the way in which objectification is experienced may explain some variation in disordered eating behaviours, but not the outcome as a whole (Engeln-Maddox, Miller and Doyle, 2011). For men particularly, body dissatisfaction and appearance anxiety were stronger predictors of clinical outcomes than shame (Tiggemann and Kuring, 2004) than was found for women.

4.2. **Strengths and Limitations**

Although 19 of the 31 studies included in this systematic review were conducted in the USA, and this has been a limitation of the research field addressed in previous systematic reviews conducted (Jones and Griffiths, 2015); the current systematic review identified that within recent years a number of studies have been conducted in non-Western countries (Kim, Seo and Bae, 2014; Jackson and Chen, 2015). This is of valuable contribution in widening the scope of research. Particularly, when considering the differences in cultural influences on objectification experiences, mediating factors and outcomes. Further limitations of the included studies pertain to the homogeneity of the populations used. In only 9 of the total 31 papers were males included as participants and of this 9 only 3 studies involved males only (Martins, Tiggemann and Kirkbride, 2007; Wiseman and Moradi, 2010; Dakanalis et al., 2012). Similarly, to Jones and Griffiths (2015) it is observed that when assessing construct validity and reliability of the measures used to report objectification, morality and MHOs the demographics of chosen participants are not immediately concerning.

However, when considering ecological and cross-cultural validity of outcomes to wider populations, the potential lack of applicability of the items involved in measures and differences in sociocultural environments for more heterogeneous populations must be considered (Jager, Putnick and Bornstein, 2017). Comparatively to the limitations of studies outlined in previous systematic reviews, perhaps due to their inclusion of only one mental health outcome, this review identified studies that addressed the potential influence of extraneous and confounding variables on outcomes. Such that, this review considered research that is of limited scope, perhaps drawing attention to healthcare professionals. Moradi and Rottenstein, (2007) evidenced that regardless of impairment the relationship between objectification, morality and MHOs is significant. Furthermore, the majority of studies in this review (n=21) used university students for their population samples. Whilst convenience sampling is not inherently redundant or lacking in robustness, it does limit the validity

and reliability of the results due to the reduced ability of random selection of participants and an increased interference of biases, such as that of the researcher (Etikan, Musa and Alkassim, 2016), thus perhaps limiting the overall quality of this systematic review.

Kellie, Blake and Brooks (2019) conducted research assessing interpersonal perceptions with regard to the objectification of women. This allowed observers attitudes and beliefs about the morality of objectified women to be thoroughly investigated. Therefore, a limitation of this systematic review is that the search strategy (Appendix 4a,b) did not include search terms that would have identified similar research to this. For future research an interesting direction to take would be to widen the scope of this systematic review to include not only personal reports of morality but compare those findings to those made by observers. A further limitation of this systematic review is that subjective, qualitative studies were not included in the final sample. Additionally, a meta-analysis was not conducted for this review, although not required for this project added limitations regarding time constraints had to be realistic due to the timeframe in which this systematic review was conducted (during Covid-19 global pandemic).

4.3. Comparison to existing Literature

A strength of the current systematic review is that studies were not excluded on the basis of their chosen objectification, morality or mental health measuring test. Whilst personality disorders were excluded from the review, the rationale for this pertains to the limited scope of research regarding objectification and such mental health outcomes. Furthermore, Carrotte and Anderson, (2018) conducted a systematic review identifying this relationship and ultimately identified only 15 relevant studies for inclusion. As a systematic review regarding personality traits and disorders has been conducted within the last 5 years it was determined to be an acceptable exclusion criterion for this review. Moreover, this review did not limit possible study inclusion by excluding populations on the basis of gender, sexual orientation, country in which research was conducted or year of publication. By maintaining particularly open criteria for inclusion, this review allowed for the whole scope of objectification research to be accessed, this enabled various comparisons to be made that otherwise may not have been identified.

4.4. Implications

When considering the desired outcome of systematic reviews that healthcare providers are delivered useful information that may indicate avenues for mental health promotion and prevention, this systematic review addresses this need. Dakanalis et al., (2012) discussed practical implications for policy and practice in mental health outcomes of objectification. It was determined that

improvements in media literacy would moderate the effects of sexually objectifying media and combat negative mental health outcomes. By evidencing the relationships between these factors in this systematic review it would be possible for practitioners to devise adequate intervention programmes. The usefulness of this review for practice and policy is further supported by Henry (2017) where reform pertaining to objectified experiences is advocated through encouraging policy makers to address the evidence presented to adapt mental health services accordingly. With regard to future research directions, due to the limited scope of qualitative data available for this field it would be invaluable to conduct research whereby valid and subjective data could be obtained, with a larger focus on various morality emotions rather than shame alone. For an example of potential future qualitative research see Appendices 1, 2 and 3 where rationale and methodological descriptions are given for conducting such a piece of research.

4.5. Conclusion

This is the first systematic review to examine the multifaceted nature of the relationships between objectification and mental health. Contrastingly to previous systematic reviews conducted, a relationship between specific variants of objectification and specific mental health disorders was not pre-determined. This review provides evidence that supports the predictive nature of objectification and the mediating role that feelings of morality (i.e. shame) have on mental health outcomes. Research questions 1 and 2 were adequately addressed using the data extracted from chosen studies. However, regarding research question 3, when identifying gaps in the evidence base for feelings of (im)morality and objectification the data collected highlights various methods of improvement for future research directions; and addressed the limitations pertaining to measurement of specific morality feelings. The implications of these findings suggest that it would not only be constructive but justifiable for policy makers and practitioners to address the observed relationships within clinical practice (Tiggemann, 2013). Thus, the scope for improvement across this field of research through further examination of future directions, is not only necessary but beneficial.

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Appendices

Appendix 1 – Ethical Application

University of Glasgow | College of Medical, Veterinary & Life Sciences

College of Medical, Veterinary & Life Sciences Ethics Committee for Non-Clinical Research Involving Human Participants

APPLICATION FORM FOR ETHICAL APPROVAL

NOTES:
THIS APPLICATION FORM SHOULD BE TYPED NOT HAND WRITTEN.

ALL QUESTIONS MUST BE ANSWERED. "NOT APPLICABLE" IS A SATISFACTORY ANSWER WHERE APPROPRIATE.

The primary remit of this committee is the review of non-clinical research. However, clinical research involving humans, their tissue or data that falls outwith the remit of the NHS Research Ethics Service will also be reviewed by the MVLS committee. If your project involves NHS facilities, or is clinical research, then you must ensure that NHS REC review is not needed before applying to the MVLS REC. The review of the MVLS REC does not obviate the need for NHS review.

Please note – it is now a requirement for a Data Protection Impact Assessment (DPIA) to be completed where processes are likely to involve high-risk personal data. This is likely to be the case for many research projects. If so, you must complete this before submission for ethical review. For research involving personal data, you should give participants a Privacy Notice as well as a Participant Information sheet.

Information on DPIAs and Privacy Notices
https://www.gla.ac.uk/myglasgow/dpfoiloffice/gdpr/dpia/
https://www.gla.ac.uk/myglasgow/dpfoiloffice/gdpr/privacy%20notices/

Information on the General Data Protection Regulation (GDPR)
https://www.gla.ac.uk/myglasgow/dpfoiloffice/

Information on Research Data Management
https://www.gla.ac.uk/myglasgow/datamanagement/

University of Glasgow policy on surveys of students for research purposes
https://www.gla.ac.uk/myglasgow/senateoffice/policies/studentengagement/studentsurveys/policyonstudentsurveys/

Project Title: How does self-objectification impact the mental health of Glasgow University's student population?

Has this application been previously submitted to this or any other ethics committee?
Yes/**No**

If 'Yes', please state the title and reference number.

Is this project from a commercial source, or funded by a research grant of any kind?
Yes/**No**

If 'Yes', has it been referred to Research Support Office?
Has it been allocated a project Number?
Give details and ensure that this is stated on the Informed Consent Form.

Insurance Coverage and Restrictions:

****Please Note: The Insurance restrictions set out below relate to research of a clinical nature. Non clinical research is not subject to restriction and no additional insurance is required****

The University insurance cover is restricted under specific circumstances, including, but not limited to the following -

- **work involving the use of research participants outside Great Britain, Northern Ireland, the Channel Islands or the Isle of Man**
- **the use of hazardous materials**
- **non CE marked medical devices**
- **molecules or compounds developed and manufactured at the University of Glasgow**
- **number of participants in excess of 5000**
- **work involving research participants known to be pregnant at the time of the project**

All such projects must be referred to Research Support Office and coverage confirmed before ethical approval is sought. Please contact Dr Debra Stuart in the University's Research Governance Office: debra.stuart@glasgow.ac.uk

Please tick here if this project has been referred to the Research Support Office to confirm adequate insurance coverage. ☐

Please tick here if the project includes a technique involving incision, piercing of skin, insertion of a device or object, ingestion of medicines or food substances. ☐

Please tick here if the project involves work on human participants that will be conducted within the Imaging Centre of Excellence (ICE) ☐

Date of submission: March 2020

Name of all person(s) submitting research proposal: MSc Student and supervisor

Position(s) held: Postgraduate Taught MSc Global Mental Health student, Lead researcher for this project.

School/Group/Institute/Centre: Global Mental Health MSc, Institute of Health and Wellbeing, College of Medical, Veterinary and Life Sciences at the University of Glasgow.

Address for correspondence relating to this submission:

Email address: XXXXXXXX@student.gla.ac.uk

Name of Principal Researcher (if different from above, e.g., Student's Supervisor):

Position held:

Undergraduate student project:
Yes/**No** If 'Yes', please state degree being undertaken:

Postgraduate student project:
Yes/No If 'Yes', please state degree being undertaken:

MSc in Global Mental Health.

For postgraduate student projects, please state whether this a research (PGR) or taught (PGT) degree:

Postgraduate Taught (PGT).

1. Describe the purposes of the research proposed. Please include the background and scientific justification for the research. Why is this an area of importance? Please try to describe why the research is novel and experimental.

We do not need a comprehensive review of the topic area: a short summary that is sufficient for the reviewers to understand the study is sufficient. Bullet points and references to more detailed texts are both acceptable.

Mental disorders result in a significant economic burden across the globe (WHO, 2019), therefore, understanding the contributing factors to the development and maintenance of mental health issues is of great importance. A potential contributing factor identified for the increasing prevalence of depression, anxiety and self-esteem issues is self-objectification (Grabe and Hyde, 2009). Fredrickson and Roberts (1997) introduced the concept of self-objectification; this has been defined as the internalisation of others perspectives of our own physical appearance, such as facial attractiveness and body shape among other things. This research identified the anxiety and shame women experience due to self-objectification. However, this research field is still in its infancy regarding the scope in which it has been explored, as it only began twenty years ago with Fredrickson and Roberts (1997). The field of research has thus far focused on how self-objectification occurs, such as the factors that play a mediating role in its development (for example, media exposure). Grabe and Hyde (2009) investigated the role of sexually objectifying media and its psychological outcomes, self-objectification was considered a consequence of exposure to this kind of media. Moreover, the findings produced interesting data showing that the process of self-objectification mediates the relationship between sexually objectifying media exposure and issues with self-esteem, depression and anxiety.

Much of the existing literature pertains to the experiences of females, with great focus on adolescent females and young women (Aubrey, 2006; Grabe and Hyde, 2009; Vandenbosch and Eggermont, 2012; Watson et al., 2012). This research has focused on the impact of exposure to sexually objectifying medias on female body self-perceptions and its relationship with self-esteem and depression mainly. Therefore, there is a methodological gap that can be addressed in the current research project whereby there will be no focus on gender or specific mental disorder. Whilst there is evidence that in adolescent females there are many changes occurring that evidence reason to investigate the impact of the internalisation of perspectives of attractiveness (Tiggemann, 2011), there is currently no data regarding male experiences of self-objectification. Therefore, in the current study both males and females will be recruited subject to their meeting of the inclusion criteria, allowing investigation into the impact of self-objectification on mental health that is not limited by gender.

Jones and Griffiths (2015) conducted a systematic review of research concerning self-objectification and depression. This review found that the majority of studies were conducted in Australia and the United States of America. This finding highlighted that not only is most of the research pertaining to high income countries but allows scope to see if the evidence found is consistent across another high-income country like the United Kingdom. Findings and theories cannot be considered to be ecologically valid if the scope of the research evidence is not wide enough. The evidence base over the last twenty years surrounding self-objectification has focused on measurable outcomes and quantitative data. Nonetheless, qualitative data has been conducted in this area however, it is very limited (Watson et al., 2012). Watson et al., (2012) illuminated the black female experience of self-objectification as related to not just femaleness but class and race. This research provided data for comparison across demographics, however as the black female experience is not undisputedly generalisable to a wider female experience of self-objectification there is need for producing qualitative data that is not focused on a specific experience. Therefore, for the current study investigating the impact of self-objectification experiences on mental health in males and females, in a high income country, using qualitative methodology and analysis would be addressing some of the major gaps in this research field.

This research will undergo grounded theory analysis (GTA; Glaser and Strauss, 1967) which will investigate the impact of self-objectification on mental health by identifying the interactions and patterns that quantitative methodology cannot extrapolate (Braathen et al., 2013). This is considered an appropriate methodology to use and a valuable contribution to the existing literature, as self-objectification is innately subjective and GTA focuses on an individual's subjective worldview (Braathen et al., 2013). In this research

this will offer insight into how an individual experiences and copes with self-objectification and how this relates to their mental wellbeing.

References for this background and remainder of the document:

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2. Describe the design of the study and methods to be used. If multiple methods are to be used, please describe them each in turn. Include details of the study sample size and how you decided this. Statistical advice should be obtained if in doubt.

2.1. Design, Sample, and Screening: The study will use a qualitative design with semi-structured interviews to collect data, the interview questions and procedure can be found on the interview schedule. Analysis will be guided by Grounded Theory Analysis (GTA) (Glaser and Strauss, 1967).

This study is interested in the experience of self-objectification and its relationship with mental health. With excessive accessibility and use of social media - research conducted by Aubrey (2006) and research regarding the Me-Too Movement - research investigating the impact that self-objectification has on mental health is even more relevant. Systematic reviews conducted looking at the relationship between self-objectification and depression indicated that much of the research was conducted using quantitative methodology. Utilising qualitative design and analysis produces in depth data that can be analysed allowing meaning to be more readily derived. Aubrey (2006) identified that the psychological processes underlying self-objectification acted to either harm or protect self-esteem. Therefore, the link between self-objectification and mental health has been observed. Thus, identifying how mental health is impacted is of great value in today's society. Particularly when considering the extensive exposure and accessibility to social media, and in the wake of the Me-Too Movement.

The sample will comprise of 6 persons that are eligible for participation due to their meeting of the inclusion/exclusion criteria.

Potential participants will be screened using the following inclusion and exclusion criteria:

Inclusion:

1. 18 years or over

Exclusion:

1. Are not competent in English

After being made aware of the study through advertisements circulated by administrative staff for the Institute of Health and Wellbeing to students or via social media platforms. Potential participants will email MSc Student with their contact details and will later be contacted by the master's student. Participants will be screened via responses to questions relating to the inclusion/exclusion criteria whereby they must be competent in English and over the age of 18 behaviours. This will determine eligibility to participate in this study. The researcher will be able to answer any questions there may be relating to the study. All information gathered during the screening process will be stored securely on a University of Glasgow protected PC for the duration of the study. For those that do not wish to take part or an ineligible, their screening data will be immediately destroyed. For those that meet the eligibility criteria will be invited to take part in an interview for the study. Chosen participants will then be sent via email, the participant information sheet, consent form, privacy notice and DPIA prior to the interview. Participants will be informed that support services have been provided on the information sheet should they wish to access these services following the interview.

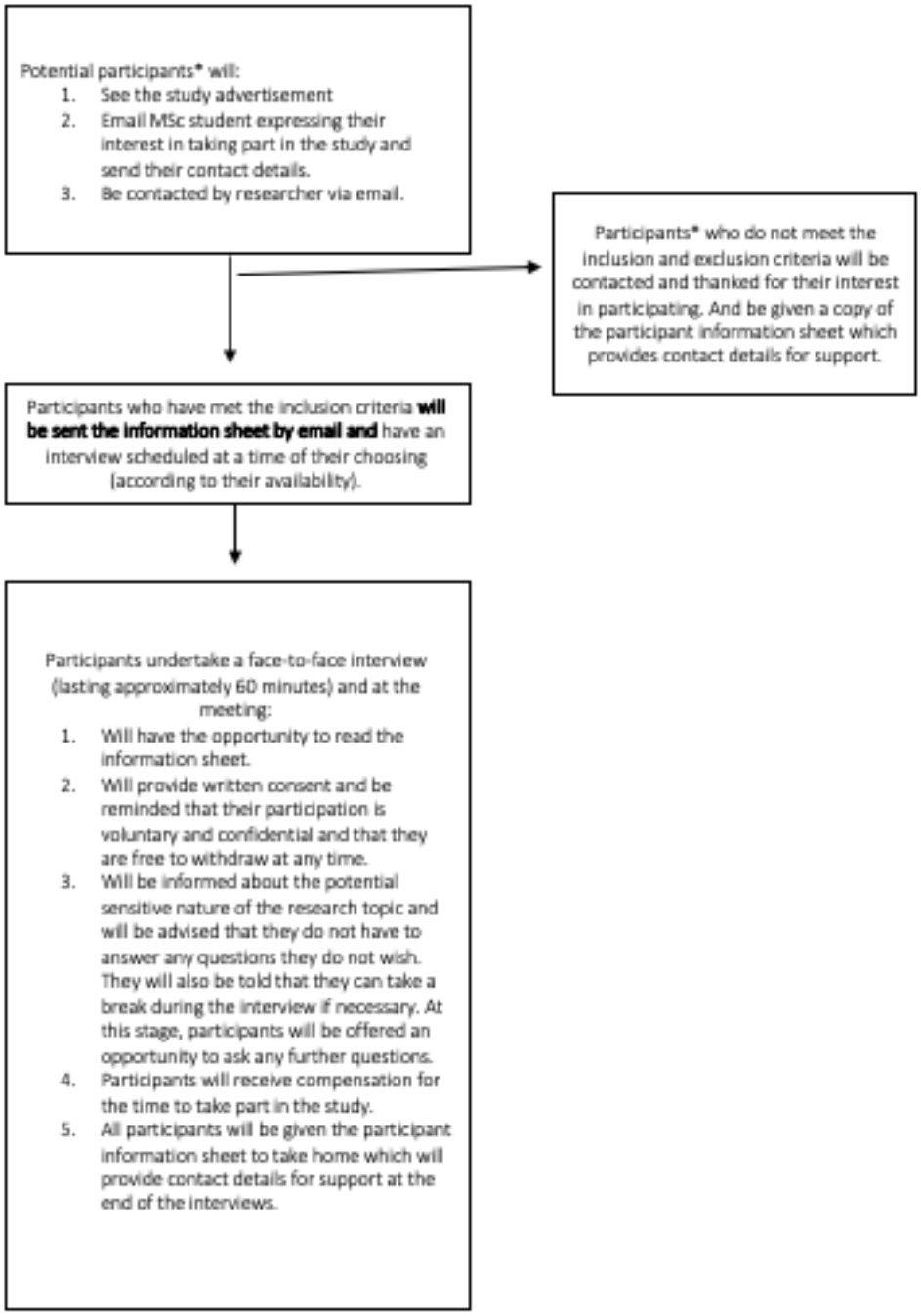
2.2. Interview/Measures.

Individual semi-structured interviews will be conducted by MSc Student and are expected to last approximately one hour. The interviews will follow the interview schedule. This is comprised of a few questions used to encourage participants to discuss their experiences regarding self-objectification and how this has impacted their mental health and wellbeing.

This interview schedule will be used as a guide throughout the interview to ensure that conversation does not deviate too far from the topic of discussion. However, it will allow for participants to talk about experiences they believe to be important and relevant. The schedule will be used for each participant invited to be interviewed, its effectiveness will be evaluated after the first couple of interviews have been conducted. This is to maintain the appropriateness of the questions and to identify any potential issues. This evaluation will be reviewed by the master's student's supervisor. The interviews conducted will be audio-recorded once consent has been provided by the participants and will be transcribed by the researcher. Following this, the audio recordings will be destroyed. Anonymised transcripts will be shared with the student's supervisor to ensure that this process has been carried out appropriately. They will then be analysed using Grounded Theory Analysis (Glaser and Strauss, 1967).

3. How will potential participants in the study be (i) identified, (ii) approached and (iii) recruited? Give details for cases and controls separately, if appropriate

You should explain how a person becomes identified as a potential participant and then an enrolled participant. If the initial approach uses a poster, social media or email then the materials should be submitted for review.



4. Describe the research procedures as they affect the research participants and any other parties involved. It should be clear exactly (i) what will happen to the research participant, (ii) how many times and (iii) in what order. If your research involves administration of a substance, for example saline, topical anaesthetic etc. then please give full details on the substance and manufacturer. Reference to an existing standardised operating procedure is acceptable.

Participants will be recruited via adverts placed around the University of Glasgow's Gartnavel and Gilmorehill campuses. Additionally, administrative staff for the College of Medical, Veterinary and Life Sciences will distribute the study advert via email to Glasgow University students where they may contact lead researcher if they wish to receive further information or participate in the research. Participants will then be screened to ensure that they meet inclusion/exclusion criteria. If a potential candidate does not meet the inclusion criteria or decides they do not wish to participate any information provided will be deleted. Once selected for participation, individuals will be sent copies of the informed consent form, participant information sheet, privacy notice and DPIA via email prior to their scheduled interview. For those who do not have regular access to email, the master's student will go over these forms prior to the interview.

Once recruitment is completed, the online adverts will be withdrawn. The advert will read as follows:

> ***Does what others think of you impact your mental health?***
>
> ***Researchers at Glasgow University are seeking persons (male or female, 18 years or older) who are interested in discussing their experiences of self-objectification (internalisation of other's perceptions of one's appearance as primary view of their physical selves) to participate in a study aimed at investigating the relationship between self-objectification and mental wellbeing.***
>
> ***- Eligible participants will receive £16 for their time in this confidential study.***
> ***- Participation involves: contacting the researcher by email and one visit to Glasgow University's Gartnavel Hospital campus or Gilmorehill campus to take part in an interview.***
> ***- To learn more, please email MSc Student XXXXXXXX@student.gla.ac.uk***
>
> ***This is a research study and taking part in it does not imply receiving any help or support with mental health concerns. Please take careful consideration in your participation due to the potential for sensitive discussions that may be distressing to some individuals.***

The interviews will take place at either the centre for health and wellbeing at Gartnavel Hospital or Glasgow University's Gilmorehill campus. Participants will be offered tea, coffee or a glass of water. The facilities in which the interview will be conducted will typically be a small room with two chairs placed across from each other. Workers in surrounding environment will be aware when there are interviews scheduled and someone will be available to provide assistance if required. Before and/or after the interview Jordan Green will offer to send the participants a copy of the completed research paper and their transcripts for review.

5. What are the ethical considerations involved in this proposal? You may wish, for example, to comment on issues to do with consent, confidentiality, risk to participants, etc.

Potential ethical implications of this study have been identified and given due consideration. Potential risks identified include issues relating to informed consent, participant confidentiality and possible distress to participants. Efforts to minimise these risks are described below:

5.1. Informed Consent. *Participants will be adequately informed of the nature of this study and expected requirements of them, this is of vital importance before participation. The right to withdraw and confidentiality of participant information and data will be made explicit.*

5.2. Data Protection and Confidentiality. *Anonymisation and confidentiality of participant data will be assured by lead researcher to participants before, during and after participating in this study in accordance with GDPR and the University of Glasgow's ethical policy. Any potential limitations regarding confidentiality of participant data will be explained to participants. Pseudonyms will be used during analysis and reporting of results to protect participants identity. Participants will be provided with a Privacy Notice, explaining the University of Glasgow's privacy policy. A DPIA form has also been completed for this study. Participants will be informed and assured that following transcription of their data; the audio recordings of their interview will be destroyed to ensure that there is no identifiable information pertaining to each individual.*

5.3. Possible Distress of Participants *As this research concerns the relationship between self-objectification (internalisation of other's perceptions of one's physical appearance) and mental health there is the potential risk for participants to experience distress relating to the nature of discussion. To minimise risk to potential participants, they will be asked to ensure that they have given careful consideration regarding the nature of the research before expressing interest. Although the master's student has limited experience of conducting qualitative research, during their undergraduate programme in Psychology at the University of Glasgow a small group research project was undertaken where data was collected during focus group interviews. The master's student will also seek the guidance of her supervisor and other researchers at the University of Glasgow to ensure that her interview techniques are appropriate and adequate to conduct this research. Additionally, the master's student has experience in managing potentially distressing situations through mentoring roles within a national charity working with young persons. There will be appropriate acknowledgement of the potentially distressing nature of this research for some participants and as such, participants will be informed that if there are any questions they do not wish to answer, they do not have to. Participants will be advised that if at any point they require a break during the interview process or wish to withdraw from the research at any time, they can do so without providing explanation.*

6. Outline the reasons why the possible benefits to be gained from the project justify any risks or discomforts involved.

There is limited published qualitative research investigating the relationship between self-objectification and mental health in university students. This research is beneficial to the wider field investigating self-objectification and internalisation of beauty standards, as much of the previous research has investigated the role of social media in self-objectification and its processes. By asking participants open ended questions regarding their experience we will be able to see how much of a role social media has played, rather than introducing the influence of social media. The possible risks or discomforts that may be experienced by participants are that self-objectification may be the result of something more traumatic than exposure to societal ideals, however participants will contribute to the understanding of the impact of this on mental health and therefore allow for improvements and advancements to be made regarding the ways in which we navigate mental health issues and attempt to mitigate potential causes of mental and emotional discomfort.

7. Who are the investigators (including assistants) who will conduct the research? What are their qualifications and experience?

MSc student will be conducting this research project under supervision.

Previously obtained BSc (Hons) in Psychology from the University of Glasgow in 2018. Has experience working with vulnerable people through volunteering position where she works as an employability mentor for young people. This has involved working with individuals that have experienced trauma, have mental health issues and learning difficulties. MSc student has also previously completed an independent piece of research during her final year at university, which received a first class grading. This research project required organisational skills, including time management. Her research used quantitative methods and laboratory-based investigations using unfamiliar programming software. This allowed her to develop the skill of remaining calm when systems do not work as they should. A skill that will be valuable when conducting interviews with humans that are unpredictable.

Further information regarding the experience and qualifications of the research team can be found in the curriculum vitae for both MSc student and supervisor.

8. Are arrangements for the provision of clinical facilities to handle emergencies necessary? If so, briefly describe the arrangements made.

Not Applicable

9. In cases where participants will be identified from information held by another party (e.g., a doctor or hospital), describe how you intend to obtain this information. Include, where appropriate, whether additional Research Ethics Committee approvals will be sought and gained (including overseas committees).

Not Applicable

10. Specify whether participants will include students or others in a dependent relationship and, where possible, avoid recruiting students who might feel to be, or be construed to be, under obligation to volunteer for a project. This is most likely to be when a student is enrolled on a course where the investigator is a teacher. In these circumstances, the recruitment could be carried out by one of the other investigators or a suitably qualified third party.

This study will recruit participants via adverts on social media, adverts placed in buildings at the Gilmorehill campus or through adverts distributed throughout the college of medicine, veterinary and life sciences via email. Participants will have to reach out to MSc student via email if interested in the study, therefore there will be no sense of obligation to participate. The research will be led, and interviews will be conducted by MSc student, who has no teaching responsibilities at the University of Glasgow.

11. Specify whether the research will include children or participants with mental illness, physical disability or intellectual disability. If so, please explain the necessity of involving these individuals as research participants and include documentation of the suitability of those researchers who will be in contact with children or vulnerable adults (e.g., Disclosure Scotland or membership of the Protection of Vulnerable Groups Scheme).

Participants will be over 18 years old; we do not intend to intentionally involve vulnerable groups specifically. However, participants will not be excluded on the basis of having pre-existing mental health conditions. Participants will be selected according to the inclusion and exclusion criteria, identified in section 2 of this document.

12. Will payment or other incentive, such as a gift or free services, be made to any research participant? If so, please specify, and state the level of payment to be made and/or the source of the funds/gift/free service to be used. Please explain the justification for offering an incentive.

Each participant, upon completion of the interview will receive £16 compensation. This is considered to be adequate compensation for the time spent being interviewed. For those that have had to travel to participate in this study will be reimbursed for their expenses.

13. Please give details of how consent is to be obtained and recorded. A copy of the proposed consent form, along with a separate information sheet, written in simple, non-technical language MUST ACCOMPANY THIS PROPOSAL FORM.

Consent will be obtained from participants by providing them with the consent form and participant information sheet once they have been selected to participate in the research to ensure that there has been adequate time for participants to understand the nature of the research and the procedure of the interview that will take place.

When participants arrive for their scheduled interview, they will be provided with a physical copy of the information sheet and privacy notice to read through before being provided with the consent form to sign and date. Participants will also be verbally reminded that their participation is voluntary and that they are free to withdraw from the study at any time should they wish to do so. The same will be done for informing participants that there may be times during the interview where they may feel uncomfortable and they are not required to answer any questions they do not wish to and that they may take a break when necessary throughout the interview.

The participant will be given the opportunity to ask any further questions.

The signed consent form will be retained for administrative purposes.

14. Comment on any cultural, social or gender-based characteristics of the participants that have affected the design of the project or may affect its conduct.

This research is not looking to investigate the experiences of individuals based upon any specific cultural, social or gender-based characteristics. Any person is welcome to show interest in this research and participate. The design of this study will not be influenced by the participants.

15. Please state (i) who will have access to the data, (ii) how the data will be stored, how will access be restricted, and (iii) what measures will be adopted to maintain the confidentiality of the research participants and to comply with data protection requirements.

For studies where participant responses are recorded and transcribed at a later date, give details of storage and transcription. Please give some detail on how long data will be stored for and where. You should clarify how identifiable, anonymised research data and consent forms will be stored.

Please tick to confirm that all relevant research data generated during and after the study will be collected and held in compliance with the General Data Protection Regulation (May 2018). ☐ ✓

Please tick to confirm that you have completed a data protection impact assessment form if required. ☐ ✓

If this is not required, please specify why not;

For guidance in this matter, please refer to the University Data Protection Office webpages:
https://www.gla.ac.uk/myglasgow/dpfoioffice/gdpr/

In regard to (ii) above, please clarify (tick one) how the data will be stored:

☐ **(a) in a fully anonymised form (link to participants broken),**

☐ **(b) in a linked anonymised form (data +/- samples linked to participant identification number but participant not identifiable to researchers), or**

☑ **(c) in a form in which the participant could be identifiable to researcher.**

If data are stored in linked anonymised form, please state who will have access to the code and personal information about the participant.

The data will be held securely for a period of ten years after the completion of the research project, or for longer if specified by the research funder or sponsor, in accordance with the University's Code of Good Practice in Research. (https://www.gla.ac.uk/research/strategy/ourpolicies/) Please tick and give further details below

The participant interview transcriptions will be anonymised through the use of pseudonyms. ☑

16. To your knowledge, will the intended group of research participants be involved in other research? If so, please justify.

No

17. Proposed starting date: April 2020

Expected completion date: July 2020

18. Please state location(s) where the project will be carried out, including all overseas laboratories, hospitals and other relevant locations.

Fieldwork will be conducted at the University of Glasgow's Institute of Health and Wellbeing at the Gartnavel Royal Hospital and the Gilmorehill campus.

College of Medical, Veterinary and Life Sciences
University of Glasgow
Academic Centre, Gartnavel Royal Hospital
1055 Great Western Road
Glasgow, G12 0XH

Gilmorehill campus
University of Glasgow
University Avenue
Glasgow, G12 8QQ

19. Please state briefly any precautions being taken to protect the health and safety of researchers and others associated with the project (as distinct from the research participants), e.g., where blood samples are being taken, home visits.

We do not anticipate any risk to researchers. Researcher Jordan Green will attend meetings with supervisor where it will be ensured that the researcher is supported throughout the duration of the project. The interviews will take place at designated University of Glasgow locations (Gartnavel campus and Gilmorehill campus), therefore, there will be others present if they are needed for assistance.

20. Please state all relevant sources of funding or support for this study.

Costs have been approved by the MVLS ethics committee. These account for incentives, travel reimbursements and the costs of printing documents for the study.

21a). Are there any conflicts of interest related to this project for any member of the research team? This includes, but is not restricted to, financial or commercial interests in the findings. If so, please explain these in detail and justify the role of the research team. For each member of the research team please complete a declaration of conflicts of interest below.

Researcher Name: _ _____ conflict of interest Yes / **No**
If yes, please detail below

Researcher Name: _ _____ _____ conflict of interest Yes / **No**
If yes, please detail below

Researcher Name: _____ conflict of interest Yes / No
If yes, please detail below

Researcher Name: _____ conflict of interest Yes / No
If yes, please detail below

21b). If there are any conflicts of interest, please describe these in detail and justify conducting the proposed study.

Not Applicable

22. How do you intend to disseminate the findings of this research?
Please include details of how the study participants will be notified of the study finding. If they are not to be informed, please justify.

Upon completion of the interview, participants will be asked if they would like to receive a copy of the submitted research paper. If participants say 'yes', they will be sent a copy electronically.

I confirm that have read the University of Glasgow's Data Protection Policy.
https://www.gla.ac.uk/myglasgow/dpfoioffice/

(Proposer of research)
Please type your name on the line above.

For student projects:

I confirm that I have read and contributed to this submission and believe that the methods proposed and ethical issues discussed are appropriate.

I confirm that the student will have the time and resources to complete this project.

Name __ _____ Date _____
(Supervisor of student)
Please type your name on the line above.

Please upload the completed and signed form, along with other required documents by logging in to the Research Ethics System at - https://frontdoor.spa.gla.ac.uk/login/

Appendix 2 – Interview Schedule

University of Glasgow | College of Medical, Veterinary & Life Sciences

Interview Schedule

- Introductions and housekeeping – offer tea/coffee/water
- Give participant £16 compensation for study.
- Review of research aims and interview process and any questions by interviewee.
- Review of confidentiality and freedom to terminate interview at any time.
- Agree on a pseudonym for participant.

Semi-structured interview questions:

- Knowing what self-objectification is, do you experience it? And when do you think this began?
  - Do you feel like this has resulted in a change over time in how you perceive yourself?
  - If you do not feel like it has been your experience, could you shed light on the reasons why you believe that to be the case?
  - To what extent do you believe you self-objectify?
  - If you feel like sharing, would you be able to describe the ways in which you self-objectify?
  - How does that make you feel, generally or about yourself?
- What would you say is responsible for self-objectification experiences?
  - Do you think it is down to external or internal influences, or both?
- Do you think gender influences the experience of self-objectification?
  - How does that make you feel?
- What impact do you think the way you perceive yourself – through the lens of self-objectification – has on your wellbeing (mentally/physically/emotionally)?
- Do you think that these experiences may have changed more than the way you view your physical self? Has it filtered into other areas of your life?
  - If so how?
  - How does it make you feel?
- How do you manage your experiences of self-objectification?
  - Do you do things to make yourself feel better?
  - Distractions from focusing on yourself?
  - Self-care?
- Is there anything else you would like to add or comment on?

Prompts to be used throughout the interview:

- How does that make you feel?
- Why do you think you feel that way?
- Can you tell me more about that?

End of interview

- Ask for any further questions
- Ask if participant would like to review transcript before it is analysed.
- Ask if participant would like to see a copy of the finished paper.
- State that participant is welcome to contact Jordan Green at any time vie e-mail following interview if they have any questions or concerns.

Appendix 3 – Participant Information Sheet

University of Glasgow | College of Medical, Veterinary & Life Sciences

PARTICIPANT INFORMATION SHEET

Study Title: How does self-objectification impact mental health?

Researcher: MSc Student (XXXXXXXX@student.gla.ac.uk)

This research is being undertaken by MSc Student at the University of Glasgow under supervision. You are being invited to participate in this research study. Before you decide whether or not you wish to participate, it is important that you understand why the research is being done and what it will involve. Please read the following information carefully. If there is anything that is not clear or if you would like more information, please do not hesitate to ask. Your participation in this study is entirely voluntary.

1. **What is the purpose of this study?**

The purpose of this study is to investigate the relationship between internalised beauty ideals and subsequent self-objectification and mental health. Participants will be asked about their experience of self-objectification and how this has impacted their mental health and wellbeing. This research will contribute towards the completion of MSc Global Mental Health degree.

2. **Why have I been invited to participate?**

You responded to an advertisement for this research and met the inclusion/exclusion criteria (18 years or above and proficient in English), therefore you have been invited to participate in this research.

3. **Do I have to take part?**

Your participation in this study is entirely voluntary and you may decline to participate at any time. If you decide to take part, you are still free to withdraw from the study at any time and without giving a reason and with no financial penalty or otherwise. If you decide to take part, you will be given this information sheets to keep and be asked to sign a consent form.

4. **What will happen to me if I take part?**

Approximately eight individuals will take part in this research, each participant will be over. If you decide to take part in this study, you will complete a single semi-structured interview lasting approximately 1 hour. Before starting the interview, you will be asked to read through all of the relevant documentation such as the consent form and this participant information sheet. After you have read these information sheets, had any of your questions answered by the interviewer, and are happy to proceed you will be asked to read, initial and sign a consent form. The experimenter will then set up the recording device to capture the interview. The interview will take place in a quiet space where no interruptions may occur to avoid concerns over confidentiality and ensuring your comfortability during this discussion.

In this interview you will be asked a series of semi-structured questions regarding your experiences of self-objectification and your mental health, however, you are able to and encouraged to speak freely about the topics. You interview will be recorded and transcribed anonymously for academic purposes. For your participation you will be paid £16. The time and date to complete this interview will be arranged with the researcher at your convenience. You will be given further clarifications if you have any questions or issues during the interview. The interviewer will only stop the interview unprompted if there appears to be an issue with the recording device or in the event of an emergency. Should any of the questions or discussion cause any distress, you have the right at any point during the interview to pause or withdraw your participation. There will be information at the bottom of this information sheet regarding organisations you may use in your own time and contact details for those involved in this research.

5. **What do I have to do?**

You will attend an interview conducted by Jordan Green, you will be asked about your experience of self-objectification and your mental health. This will have a duration of approximately 1 hour.

6. **What are the possible disadvantages and risks of taking part?**

This research concerns topics relating to your mental health and experiences of self-objectification which you may find distressing to discuss at some points. You are free to stop the interview at any point. You will be provided with contacts that will be able to provide information and support.

7. **What are the possible benefits of taking part?**

The benefit of taking part is that you will be compensated with £16 for your participation in this research. Your data will also contribute to understanding the impact of how we internalise perceptions of ourselves in relation to our overall mental health.

8. **Will my taking part in this study be kept confidential and what will happen to my data?**

Personal information provided by participants will remain strictly confidential. The data you provide will be used solely for research purposes and your responses will not be associated with any identifiable information, in compliance with the General Data Protection Regulation (GDPR 2018). Data collected for this study will be stored in a locked filing cabinet and/or in a password protected electronic file at the University of Glasgow. Only the researchers listed above will have access to these personal data. If you decide to withdraw from this research, the data you provided until that point will be destroyed. After completion of the research, your data will be held for 10 years by the university after which it will be destroyed. Your data will form part of the study result that may be published in expert journals, presentations, student dissertations/theses and on the internet for other researchers to use. Your name will not appear in any publication.

9. **What will happen to the results of the research study?**

The data collected from the experiment will be analysed and interpreted by the researcher listed above. The data will then be considered in relation to the existing body of knowledge concerning the relationship between self-objectification and mental health. When the study is completed, participants will be given the opportunity to have access to a summary of the findings. This data will be securely stored by the University of Glasgow for up to 10 years, after which the data will be destroyed.

10. **Who is organising and funding the research?**

This research is being organised and conducted as part of a master's student project and is not receiving funding from external organisations.

11. **Who has reviewed the study?**

This project has been reviewed by the College of Medical, Veterinary & Life Sciences Ethics Committee.

12. **Contact for Further Information**

If you have any questions or require further information regarding any aspect of the research, please contact MSc student via email.

Thank you for taking the time to read this Information Sheet.

Contact details for services and helplines you may wish to reach out to:

- Scottish Association for Mental Health (SAMH): call between 9-5 on 0141 530 1000 or email via enquire@samh.org.uk
- Shelter Scotland: (Sexual Harrassment) https://scotland.shelter.org.uk/get_advice/advice_topics/complaints_and_court_action/discrimination_and_harassment/sexual_harassment?gclid=EAIaIQobChMImuK4q0ix5wIVwrHtCh0uxg7ZEAAYAiAAEgL_R4_D_BwE
- Samaritans: Call anytime on 116 123 OR contact via email where response times are within 24 hours jo@samaritans.org

Appendix 4a – Search Strategy with number of results retrieved from EMBASE also used for MEDLINE (numbers differ to date of final searches, included as an example with limits applied for human studies and English language).

	Search String	Number of studies retrieved
1.	(moral* or sin* or immoral* or ethic* or dehumani#* or value* or shame or guilt or blam*).mp.	6,928,867
2.	((sexual* or self or self- or perceived or beauty) adj3 (attract* or objectif* or object* or perception)).tw.	23,188
3.	(appearance focus* or perceived beauty or body image issue* or objectif*).mp.	6,885
4.	or/2-3	22,859
5.	(depress* or anxi* or emotional disorder* or mental instability or mood disorder* or affective disorder* or eating disorder* or anorexi* or bulimi*).mp.	1,194,827
6.	mental health.tw.	188,119
7.	mental ill-health.tw.	1,068
8.	mental ill health.tw.	1,068
9.	(mental adj2 (disorder* or problem* or condition*)).tw.	107,199
10.	(self esteem or self-esteem).tw.	35,027
11.	(well-being or wellbeing).tw.	152,191
12.	or/5-11	1,071,484
13.	(adult* or adolescen* or student* or (18 year* and over) or (18 year* and older) or (18 and over) or (youth) or (young people) or (young person*)).mp.	9,429,781
14.	and/1, 4, 12, 13	842
15.	Humans or people.mp.	1172307
16.	14 and 15	134

Appendix 4b- Search strategy adapted for EBSCOhost: CINAHL and PsycINFO:

1. (moral* or sin* or immoral* or ethic* or dehumani?* or value* or shame or guilt or blam*)
2. ((sexual* or self or self- or perceived or beauty) n3 (attract* or objectif* or object* or perception))
3. (“appearance focus*” or “perceived beauty” or “body image issue*” or “objectif*”)
4. or/2-3
5. (“depress*” or “anxi*” or “emotional disorder*” or “mental instability” or “mood disorder*” or “affective disorder*” or “eating disorder*” or “anorexi*” or “bulimi*”)
6. "mental health"
7. "mental ill-health"
8. "mental ill health"
9. (mental n2 (disorder* or problem* or condition*))
10. (self esteem or self-esteem)
11. (well-being or wellbeing)
12. or/5-11
13. (“adult*” or “adolescen*” or “student*” or (“18 year* and over”) or (“18 year* and older”) or (“18 and over”) or (“youth”) or (“young people”) or (“young person*”))
14. and/1, 4, 12, 13
15. Humans or people
16. 14 and 15

Appendix 5 – Quality Assessment/Risk of Bias Tool

Criteria		YES (2)	PARTIAL (1)	NO (0)	N/A
1	Question / objective sufficiently described?				
2	Study design evident and appropriate?				
3	Method of subject/comparison group selection or source of information/input variables described and appropriate?				
4	Subject (and comparison group, if applicable) characteristics sufficiently described?				
5	If interventional and random allocation was possible, was it described?				
6	If interventional and blinding of investigators was possible, was it reported?				
7	If interventional and blinding of subjects was possible, was it reported?				
8	Outcome and (if applicable) exposure measure(s) well defined and robust to measurement / misclassification bias? Means of assessment reported?				
9	Sample size appropriate?				
10	Analytic methods described/justified and appropriate?				
11	Some estimate of variance is reported for the main results?				
12	Controlled for confounding?				
13	Results reported in sufficient detail?				
14	Conclusions supported by the results?				

Appendix 6 – Guidelines for submission to chosen journal

Author guidelines for formatting and submitting a paper to the Journal of Health Psychology can be found at the following link:

https://uk.sagepub.com/en-gb/eur/journal/journal-health-psychology#submission-guidelines