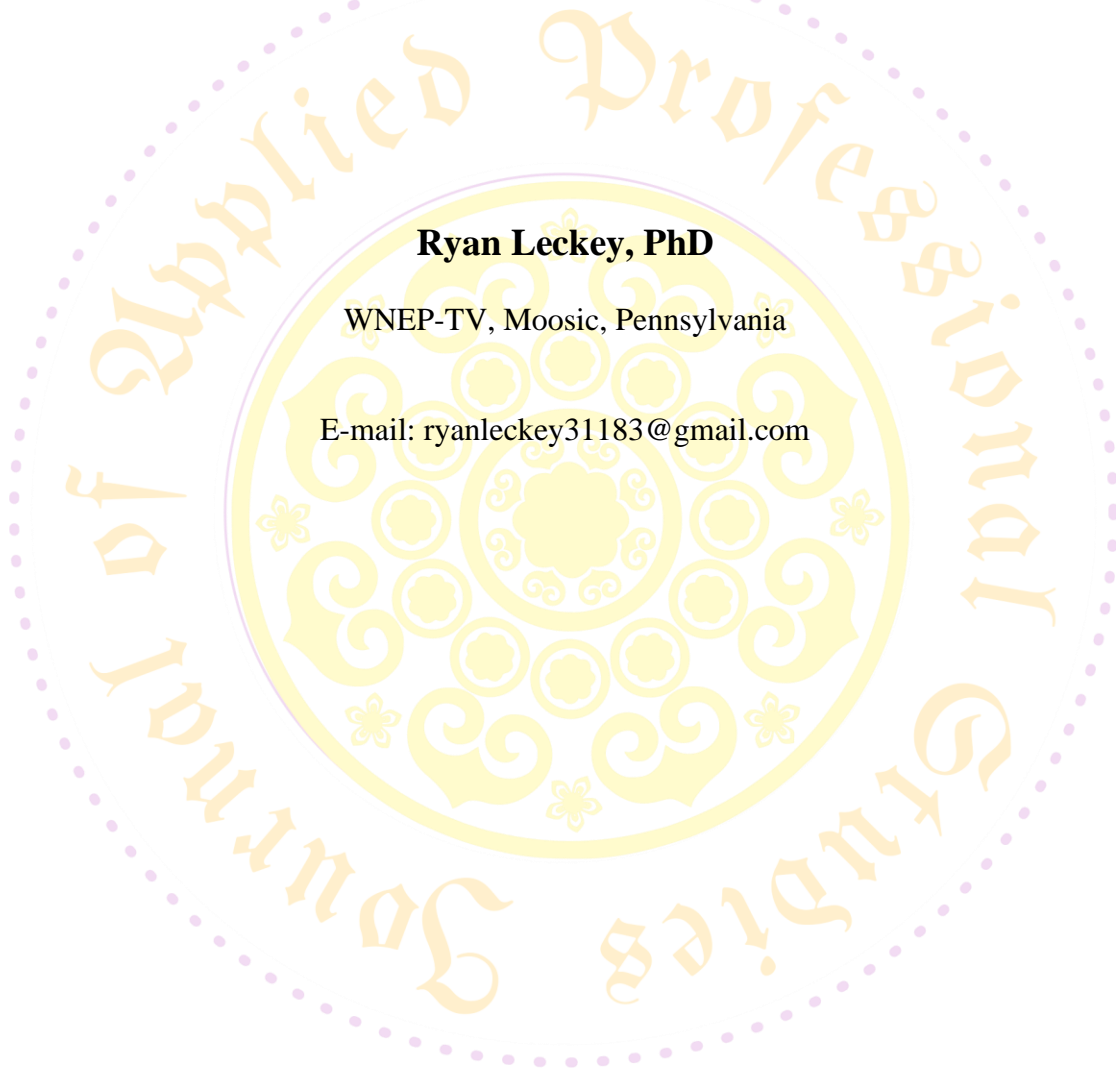# Viewing Idealized Male Bodies on Social Media
Improves Self-Esteem Scores of Gay and Straight Men[i]

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Abstract

The objective of this research was to evaluate whether viewing idealized male physiques on social media influences the self-esteem of adult men, subgrouped by sexual orientation (gay vs straight). The study included 402 men, aged 18 to 35 years, who were recruited from CrossFit gyms in Pennsylvania, New York, and New Jersey, and from the researcher's personal social media pages. Self-esteem was assessed on the Rosenberg Self-Esteem Scale (RSES) before (pre-test) and after (post-test) respondents viewed a mock social media feed for 1 minute in which 12 images of "picture-perfect" men were displayed. After removal of outliers and missing RSES responses, the resulting group (n = 289) had a significantly increased mean self-esteem score ($p < .001$) after viewing the idealized male physiques, although the effect size was small. In subgroup analysis, straight men and gay men both showed improved self-esteem scores in the post-test, and the effect size of this change was moderate in the gay subgroup. Participants were asked to provide demographic information; these factors were evaluated as potential confounders of the social media–self-esteem relationship. Student status was found to be an independent predictor of self-esteem score in the gay subgroup, and gym use was a confounding variable in the straight subgroup. Straight and gay men responded similarly and positively to viewing picture-perfect male physiques in the setting of social media. Future research could address additional potential confounders to identify subgroups most at risk of negative self-esteem effects of viewing picture-perfect images on social media.

Keywords: self-esteem, social media, gay, straight, Rosenberg

Introduction

Since its explosion into the digital spotlight in the early 2000s, social media has impacted the way people communicate. Social media platforms, such as Facebook, YouTube, Instagram, Snapchat, and TikTok, are ever-changing and ubiquitous. Users of these platforms often portray themselves and their experiences with manipulated, picture-perfect images.

The purpose of this study was to probe the effect on male self-esteem of viewing a simulated social media feed containing idealized male physiques. The feed was intended to serve as an awareness-enhancing stimulus, and the study aims were to determine (1) whether the participants' self-esteem scores at baseline (pre-test) changed after exposure to the social media feed (post-test) and (2) whether there were between-group differences in self-esteem before or after the awareness-enhancing stimulus.

Literature Review

The saturation of "perfect" images on social media may reflect a blurring of the distinction between reality and fantasy in current culture (Labre, 2005). Frequent exposure to ideals of attractiveness is a known cause of low self-esteem and psychological struggles (Hausenblas & Fallon, 2002). Social media platforms have been shown to produce an obsession with self-image in men (Turner & Lefevre, 2017).

Body dissatisfaction among males has been documented since the 1970s and has been rising in recent decades (Hausenblas & Fallon, 2002), concurrent with apparent trends toward greater muscularity in the ideal male physique (Leit, et al, 2002). Among gay men, social media viewing has been shown to result in dissatisfaction with muscularity and symptoms of eating disorders (Griffiths, et al, 2018). Findings of a large study indicated that sexual minority (ie, homosexual) males experience body dissatisfaction when using a popular dating app, and approximately 40% of participants reported that they use Facebook "all the time" (Griffiths, et al, 2018). Particularly among men who acknowledge that they compare themselves to other men, social media and traditional media (television/newspapers) are sources of stress and pressure (Keum, 2016).

Male and female undergraduate students shown images of attractive same-sex strangers appear to respond uniformly, with poorer body image and a less positive mood, compared with participants exposed to images of unattractive same-sex individuals (Fardouly & Vartanian, 2016). A large body of research has addressed the effects of social media on body satisfaction and self-esteem in women, in women compared with men, and in gay men; however, few investigators have examined this relationship in straight versus gay men (Agliata & Tantleff-Dunn, 2004; Griffiths, et al, 2018).

In the present study, the Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1965) was applied to test the hypothesis that straight men and gay men experience similar effects on self-esteem after viewing idealized images of male physiques. The RSES is a validated instrument that comprises 10 items on a 4-point scoring system, with response choices of "strongly agree," "agree," "disagree," and "strongly disagree" (Tomaka, et al, 1993). Each item corresponds to a score of 0 to 3, with greater numbers indicating a higher level of self-esteem. The total self-esteem score ranges from 0 to 30. Scores of 15 to 25 represent normal self-esteem, and scores lower than 15

represent low self-esteem. Typically, the RSES has been used to measure self-esteem as a trait, but researchers recently have been utilizing it to measure transient shifts in self-esteem that accompany an awareness-enhancing stimulus, such as viewing social media (Gonzales & Hancock, 2011).

Research Methodology

In this pre-experimental cross-sectional study, the investigator sought to compare the self-esteem levels of straight and gay men at baseline (ie, pre-test) and after viewing a mock social media feed containing idealized male physiques (ie, post-test). The study was approved by the Exempt Review Committee at Marywood University.

For the purpose of this study, picture-perfect or idealized male physiques were defined as lean, muscular bodies that portray an investment in and a focus on fitness and attractiveness (Strubel & Petrie, 2018). These body types are frequently featured in periodicals such as *Men's Health* and have been utilized previously in studies with similar research goals (Arbour & Ginis 2006).

Inclusion criteria were male gender and an age range of 18 to 35 years. Participants were recruited from 14 CrossFit gyms in Pennsylvania, New Jersey, and New York. Permission to contact gym members as part of this doctoral research was obtained from the respective gym owners. In addition, participants were recruited by means of requests made on the researcher's personal social media pages (Facebook, Instagram, Twitter, Snapchat, and TikTok); these participants were asked to confirm that they met inclusion criteria before proceeding with the study survey.

All data were collected through Survey Monkey, an online survey platform (San Mateo, CA). The surveys were administered from November 2019 to December 2019. Participants who clicked the survey link were directed to a webpage indicating the inclusion and exclusion criteria and informed consent needed to proceed. Upon confirming study eligibility and giving consent, respondents were provided access to complete the study. The 10-item RSES questionnaire was presented first; responses were considered to represent the baseline (pre-test) self-esteem scores of participants. The mock social media feed was displayed upon completion. Twelve picture-perfect male physiques were shown for 5 seconds each, for a total viewing duration of 1 minute. The RSES questionnaire then was administered a second time to determine whether a transient change in self-esteem could be captured. After completing the survey, respondents were asked to state their sexual orientation, and responses were sorted and compared to ascertain whether gay and straight participants had different self-esteem levels at baseline and post-test. Respondents also were asked to provide the following additional demographic information: age, marital status, work status, highest level of education, use of social media, gym member status, time spent in the gym, and whether social media is thought to be addictive.

A minimum of 383 respondents were needed to achieve sufficient statistical power, with a confidence level of 95% (Raosoft.com Sample Size Calculator, 2019). To meet or exceed this sample size, the investigator endeavored to recruit 500 participants. As an incentive to participate in the study, respondents were given the option to enter into a random drawing for a $100 gift card to Rogue Fitness. Survey responses were anonymized, and data were kept confidential.

Survey data were exported from SurveyMonkey for analysis using SPSS v26 (IBM, Armonk, NY). A paired-sample *t* test was applied to compare self-esteem scores before and after viewing the mock social media feed. An independent-sample *t* test was utilized to test the secondary outcome measure (self-esteem levels in gay vs straight participants). Correlation coefficients were computed to assess the strength of associations. The potential effects on self-esteem of other demographic variables were analyzed by logistic regression and one-way analysis of variance (ANOVA).

Data Analysis

A total of 402 adult men took part in the study. Of these, 105 (26%) self-identified as gay and 297 (74%) as straight (**Figure 1**). The mean (± standard deviation [SD]) age was 26 years (± 6.11 years). The modal age was 18 years. Prior to data screening, straight men tended to have a higher mean baseline self-esteem score than did gay men (23.48 ± 2.27 vs 22.87 ± 2.68); this difference was not statistically significant. The post-test scores (ie, self-esteem scores after viewing the mock social media feed) also were not significantly different between the groups (straight, 23.76 ± 2.31; gay, 23.47 ± 2.54).

Data Screening

After removing outliers (Z scores outside 3 SD; n = 5) and cases with missing RSES data (pre-test, n = 57; post-test, n = 51), a total of 289 participants were retained for study analysis (**Figure 1**). Participants were not required to respond to every demographic question, and nonresponses to these questions did not result in exclusion of that participant's RSES data from the analysis. The data were found to be normally distributed.

For the overall, cleaned data set, mean ± SD post-test RSES scores were found to be significantly higher than baseline scores (pre-test, 23.36 ± 2.14; post-test, 23.67 ± 2.26; $p < .001$) by paired-sample *t* test (**Figure 2**). However, the Cohen's *d* effect size for this difference was small ($d = .194$).

The data also were analyzed with the participants subgrouped by sexual orientation (gay [n = 73] or straight [n = 212]) (**Figure 3**). In the straight subgroup, post-test self-esteem scores were significantly increased from baseline, although the effect size was small (straight pre-test, 23.46 ± 2.07; straight post-test, 23.72 ± 2.20; $p < .05$; $d = .157$). In the gay subgroup, post-test scores were significantly improved from baseline, with a moderate effect size (gay pre-test, 23.09 ± 2.32; gay post-test, 23.62 ± 2.39; $p < .01$; $d = .325$). There was no significant difference between gay and straight subgroups in terms of pre-test and post-test self-esteem scores, as determined by independent-sample *t* tests.

Student Status

A total of 239 participants provided information about their status as students; 187 participants identified as nonstudents, and 52 identified as current students. Based on independent-sample *t* test, students and nonstudents had significantly different self-esteem scores at baseline, with a moderate effect size (student, 22.76 ± 2.13; nonstudent 23.45 ± 2.18; $p < .05$; $d = .318$). Students

and nonstudents also differed in self-esteem scores after viewing the social media feed, with a moderate effect size (student, 23.04 ± 2.05; nonstudent 23.78 ± 2.27; $p < .05$; $d = .332$).

Participants who were both gay and students had significantly lower self-esteem scores in the pre-test and post-test than did those who were both gay and nonstudents ($p < .05$). Student status was not a modifier of self-esteem score pre-test or post-test in the subgroup of straight men.

The highest reported level of education among participants was as follows: high school, 16%; associate's degree, 10%; bachelor's degree, 47%; master's degree, 17%; doctor of philosophy degree, 10%. Participants' highest level of education was not a predictor of self-esteem scores (pre-test or post-test), as determined by one-way ANOVA.

Gym Attendance

In total, 163 participants affirmed that they go to the gym, and 76 participants said that they do not. For the study population as a whole, categorical gym use and frequency of gym visits were not independent predictors of self-esteem scores at baseline or post-test. However, among straight men, gym use was an independent predictor of self-esteem scores ($p < .05$). Gym use was not a confounder of self-esteem scores in the gay subgroup.

No other demographic factors (e.g., marital status, part-time vs full-time work status, whether social media was considered to be addictive) were found to be modifiers of the self-esteem scores in the study group as a whole or in the groups stratified by sexual orientation.

Social Media Prevalence by Platform

Overall, 74% of participants in this study indicated that they use Instagram; 70% of participants use Facebook, 56% use YouTube, 53% use Snapchat, 41% use LinkedIn, 40% use Twitter, 20% use Pinterest, and 9% use TikTok. A total of 220 participants (92.83%) affirmed that social media is addictive; only 17 respondents indicated that it is not (7.17%).

Discussion

Social media has altered the lens through which users view themselves and others. Today's young adults are the first generation to grow up surrounded by social media, and research findings on the impacts of social media in this cohort are only beginning to emerge. The researcher set out to determine the self-esteem impacts of viewing a social media feed containing picture-perfect male physiques in a population of men, aged 18 to 35 years. Self-esteem and the search for self-concept and identity are central concerns among individuals of this age (Brown, 2016). In men, this developmental period is marked by efforts for a perfect physique and prevalent body dissatisfaction (Brown, 2016; Jones & Crawford, 2005).

The RSES was used to measure self-esteem in this study; this instrument is known to have high reliability, with test-retest correlations ranging from 0.82 to 0.88 and Cronbach's alpha from 0.77 to 0.88 (Tomaka, et al, 1993; Rosenberg, 1965). The findings demonstrated similar between-group RSES scores for straight men and gay men at baseline and after viewing the social media feed. In contrast to findings of other investigators that men experience poorer body image and less positive mood after exposure to images of attractive same-sex strangers (Fardouly & Vartanian, 2016), the

results of the current study suggest a transient boost in self-esteem from baseline upon viewing picture-perfect male physiques. Interestingly, a significant improvement in self-esteem occurred within gay male and straight male subgroups after only a brief awareness-enhancing stimulus—1 minute of social media viewing.

In both within-group analyses by paired-sample *t* test, self-esteem scores were significantly higher post-test than at baseline, but the effect size was greater in the subgroup of gay men. The effect size was moderate in the gay male subgroup, suggesting a true improvement in self-esteem score immediately after exposure to idealized male physiques. It could be speculated that gay men felt validated about their body image after seeing how other fitness physiques are portrayed. In contrast, there was only a small effect size in the straight male subgroup, making it difficult to conclude whether the transient boost in self-esteem was meaningful.

Gym use was a modifier of self-esteem score only among participants who also identified as straight. This finding poses an interesting counterpoint to the prevailing notion that gay men are "gym rats," helping to define the American fitness culture (Petrzela, 2018).

The primary limitation of the current study is that fewer participants were recruited than needed for good statistical power. The investigator endeavored to recruit 500 participants to exceed the 383 respondents needed for a 95% confidence level, but after screening the data for outliers and missing responses, only 289 participants were retained. Without adequate statistical power, the study was vulnerable to type II errors; that is, the study may not have been sufficiently powered to detect true differences in between-group self-esteem scores. A greater population size may be reached in future studies by planning a longer accrual period.

Conclusions

The current study was based on work completed as part of a doctoral dissertation (Leckey, 2020). The results demonstrated similar baseline self-esteem scores of gay and straight men as well as similar scores after viewing a 1-minute mock social media feed comprising idealized male physiques. In both subgroups, self-esteem scores increased following this awareness-enhancing stimulus. The investigator concludes that there may be more similarities among straight men and gay men than societal norms acknowledge. In future work on self-esteem effects of social media use, participants should be asked to provide additional demographic information to detect other potential modifiers. For instance, questions regarding socioeconomic status (eg, size of household, income), relationship status, race, and ethnicity as well as physical attributes, such as body mass index, could identify subgroups more or less at risk of unfavorable self-esteem effects of viewing manipulated, picture-perfect images in social media.

About the Author

Dr. Ryan Leckey is an Emmy-nominated morning show television personality and producer of "Leckey Live" on WNEP-TV (Moosic, PA). He is a creator of diverse social media content and a dedicated humanitarian who has raised millions through the "Ryan's Run" campaign, which benefits individuals with disabilities at Allied Services Integrated Health System (Clarks Summit,

PA). The research presented herein was conducted in partial fulfillment of a Doctor of Philosophy degree in Strategic Leadership and Administrative Studies from Marywood University (Scranton, PA).

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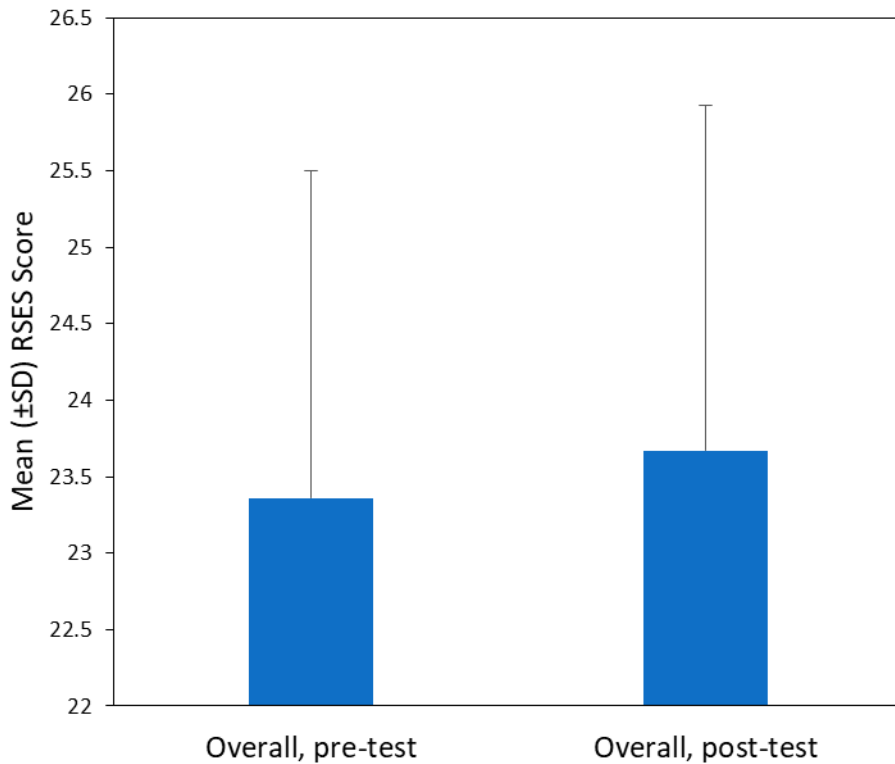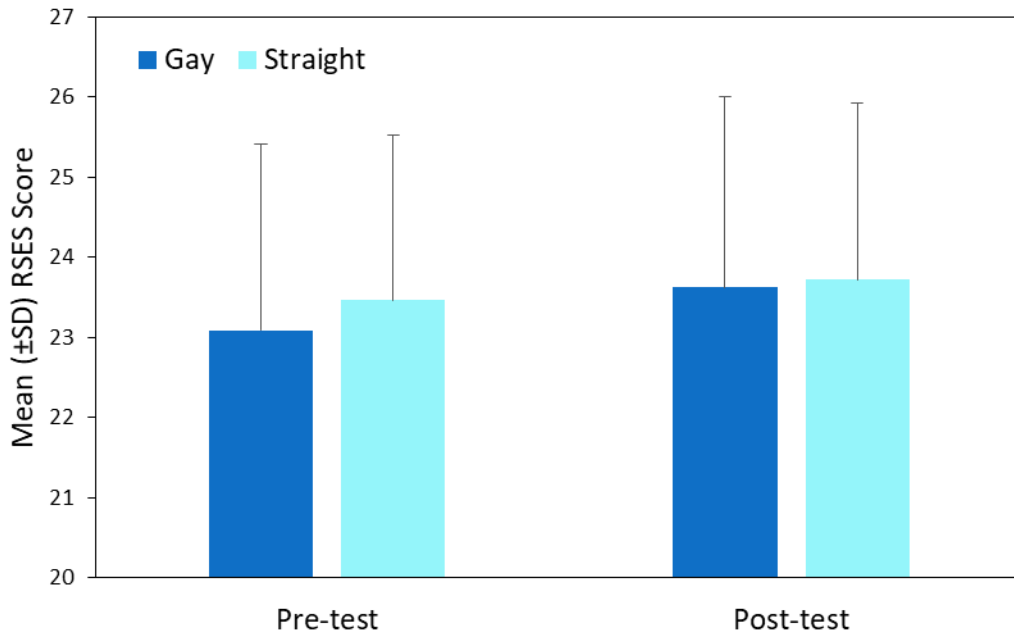
Figures

Figure 1. Study population.
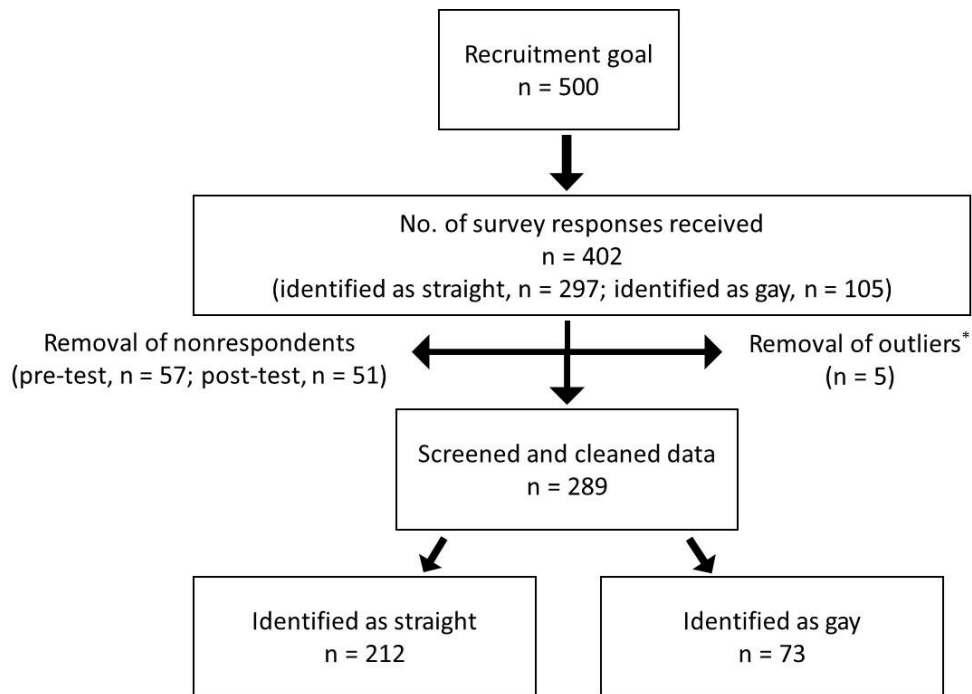
*Outliers were defined as scores that fell outside 3 standard deviations of the mean.

Figure 2. Mean RSES scores of the full study group (n = 289) before and after exposure to the mock social media feed containing idealized male physiques. The post-test self-esteem score is significantly higher than the pre-test score ($p < .001$), as determined by paired-sample t test. The effect size is small ($d = .194$). RSES, Rosenberg Self-Esteem Scale; SD, standard deviation.

Figure 3. Mean RSES scores of the gay and straight subgroups before and after exposure to the mock social media feed containing idealized male physiques. The between-group pre-test and post-test scores were not significantly different. In both gay and straight subgroups, the post-test score was significantly higher than the pre-test score (although the effect size was small for this comparison in the straight subgroup). RSES, Rosenberg Self-Esteem Scale; SD, standard deviation.