

Social Media Use and Body-Shaming as Predictors in Possible Development of Muscle Dysmorphia Symptoms Among Filipino Bodybuilders

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Abstract

Muscle Dysmorphia, a sub-type of Body Dysmorphic Disorder, is influenced by biological, psychological, cognitive, and sociological factors. This study explored the predictive effects of social media use and body shaming on muscle dysmorphic symptoms among non-clinical Filipino bodybuilders. It examined the prevalence and relationships between these variables. Using General Linear Model Regression analysis, social media appearance preoccupation had a coefficient of 0.036 ($p = 0.001$). In contrast, body image shaming had a coefficient of 0.037 ($p = 0.004$), both indicating significant effects on the development of muscle dysmorphic symptoms. The intercept was significant (coefficient = 1.012, $p = 0.000$), representing baseline symptom levels. Prevalence analysis revealed that 45 out of 100 respondents scored 3.50 or higher on the Muscle Dysmorphic Disorder Inventory, yielding a 45% prevalence rate of muscle dysmorphic symptoms within the community. Spearman Rank Correlation analysis showed a moderately positive and significant relationship between social media use and muscle dysmorphic symptoms ($\rho = 0.400$, $p = 0.000$) and a weak but significant positive relationship between body shaming and muscle dysmorphic symptoms ($\rho = 0.387$, $p = 0.000$). Social media use and body shaming also had a weak positive correlation ($\rho = 0.356$, $p = 0.000$). These findings support the rejection of the null hypotheses, demonstrating that social media use and body shaming are significantly related to the development of muscle dysmorphic symptoms among Filipino bodybuilders, with both factors contributing to symptom prevalence and relational dynamics. The study highlights the importance of addressing these influences to mitigate adverse psychological outcomes.

Keywords: Muscle Dysmorphia, Body Image, Social Media, Body Dissatisfaction

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Introduction

In recent years, ideal body image and body dissatisfaction have become common issues in the 21st century, especially with the increased use of social media and its heavy influence among its users. A previous study conducted by Manago et al. (2015) found that Facebook usage for both men and women predicted objectified body consciousness, decreased sexual assertiveness, and body shame. However, there is no significant difference in gender found in the association between sexual assertiveness and body shame. On the other hand, Griffiths et al. (2018) suggested that higher usage of photo engagement on social media sites such as Snapchat, Facebook, and Instagram matched more significant body image concerns and muscularity dissatisfaction among men. On the other hand, numerous epidemiological studies have shown consistently that many, if not from most industrialized nations, younger women are at least moderately dissatisfied with their shape or body weight (Mond et al., 2013). Previous studies on body dissatisfaction have focused mainly on the female population and largely unrecognized body dissatisfaction in the male population (Quittkat et al., 2019).

Muscle Dysmorphic Disorder is known as a sub-type of Body Dysmorphic Disorder, which, for many individuals, is not a common psychological disorder, unlike Major Depressive Disorder, Anxiety Disorders, or obsessive-compulsive disorders. However, Muscle Dysmorphia shares the same nosology as obsessive-compulsive disorder. In Clinical Psychology, most studies have investigated Body Dysmorphic Disorders but not Muscle dysmorphia. Unlike Body Dysmorphia, which is only concerned with body parts such as limbs, torso, the color of the skin, or hairs, individuals with Muscle Dysmorphia focus on their muscular build, size, and fat distribution in their bodies. Muscle dysmorphic disorder is influenced by different factors, such as biological, psychological, cognitive, and sociological factors, with much research already being investigated.

Moreover, the risk factors are already identified, such as traumatic childhood experiences and other environmental factors. However, social media and body shaming influences are still unexplored for many researchers as to whether these factors may predict the development of muscle dysmorphia symptoms among Bodybuilders. However, many studies reported that Bodybuilders are at risk of developing muscle dysmorphia due to the nature of their environment. In addition, upon investigating several meta-analyses and peer-reviewed articles from both local and foreign, there are only a few studies conducted on Filipino Bodybuilders with muscle dysmorphia symptomatology. Specifically, there is a lack of studies on muscle dysmorphia in the Philippines. To the best of the researcher's knowledge, this is the first study that will be conducted about Muscle Dysmorphia in the country.

The prevalence of muscle dysmorphia in the mainstream population is still inconclusive due to the limited number of studies (Bo et al., 2014; Tucker et al., 2011). Due to small sample sizes, researchers still need more data to generalize results to the public. Unlike Body dysmorphic disorder, which already presents an adequate amount of data available for researchers, studies in MD are lacking and limited only to the Western population and less to Eastern countries like the Philippines. Moreover, there is a lack of literature studies on the male population of bodybuilders and whether body shaming and direct social media use can predict the development of Muscle Dysmorphia symptoms in non-clinical samples of Filipino Bodybuilders.

The researcher's interest in this study is due to their relatedness to the phenomena (i.e., working out or going to the gym), except the experience of social media use or body

shaming, but rather the experience of other male bodybuilders. The study argues that social media use, especially in the dimension of appearance-related and online appearance and self-representation on the internet and the dimensions of body shaming experiences such as negative evaluation of other people and negative self-evaluation, are critical in the prediction of the development of muscle dysmorphia symptoms among non-clinical populations of Filipino Bodybuilders.

The study employed a sequential explanatory mixed methodology with quantitative and qualitative elements. For the Quantitative Phase, the study investigated the effects of Social Media Use and Body Shaming as predictors of Muscle Dysmorphic symptoms among Filipino bodybuilders. Specifically, it aims to: a. Identify the demographic profiles of Filipino bodybuilders, including age, gender, training experience, workout type, workout goal, steroid use, and reason for going to the gym; b. To predict the effects of social media use and body shaming on the development of Muscle Dysmorphic symptoms among Filipino bodybuilders, c. Determine the prevalence of Muscle Dysmorphic symptoms within the Filipino bodybuilding community and d. Assess the relationship between social media use, body shaming, and the development of Muscle Dysmorphic symptoms.

In addition, For the Qualitative phase, the study will explore the lived experience of Filipino Bodybuilders with their use of social media and their Body-shaming experience as predictors of possible Muscle Dysmorphia symptoms. Specifically, it aims to answer one central question: a. How do Filipino bodybuilders describe their experiences with body shaming and social media use? I. How do Filipino bodybuilders explore their experiences with social media? II. How do Filipino Bodybuilders describe their challenges in experiences with Body Shaming? III. How do Filipino bodybuilders experience and understand muscle dysmorphia?

Theoretical Framework

Social Comparison Theory

Social Comparison Theory was developed by an American Social Psychologist, Leon Festinger (1954); the SCT states that a person tends to evaluate and compare himself to others by comparing one's abilities, skills, traits, and others. In this manner, a person uses other people's characteristics as a benchmark for one's performance (Festinger, 1954). Hypothesis 1 states that it is a human drive to evaluate his abilities and opinions compared to others. Hypothesis 2 states that a person evaluates his abilities by comparing them with other people's abilities and opinions. Hypothesis 3 states that a person tends to compare oneself with some other specific person, and this decreases the difference between his opinion or ability and one's increases (Festinger, 1954).

This theory explains how a person develops muscle dysmorphia symptomatology by comparing himself to unrealistic beauty standards in men, for example, below 8% body fat, a v-shaped body, less body fat than average, and more significant muscular proportion. In achieving the ideal body, bodybuilders may adopt the upward comparison by comparing their bodies to other bodybuilders with good physiques they see on social media. However, the more significant the gap, the more a person is motivated to pursue the ideal physique. If left unchecked, a comparison leads to excessive workout and dieting to achieve the physique. Comparison via social media exacerbates the symptoms of MD because of comparing oneself to unrealistic body standards seen online, and these negative self-evaluations can lead to

extremes of dieting and workout. They may end up destroying a person's mental and physical well-being.

Self-Objectification Theory

In addition, the Self-objectification Theory was developed by Barbara Fredrickson and Tomi-Ann Roberts. The theory states that both genders assume an antagonistic third-person perspective towards oneself, such as men and women putting a significant value on how they see their worth as how they look to other people rather than what they can do or feel. An objectified body is a controllable, malleable, and measurable body. By treating and viewing themselves as sexual objects, it is asserted that both genders act as observers in the prediction of being judged by other people. Therefore, the body becomes a position that needs improvement and attention in keeping track of one's body to manage objectification (Calogero, 2012). In this manner, the view of a person towards himself is critical in that his self-esteem is also at risk of degradation. Self-consciousness is prevalent in an individual when he aims to objectify himself. For instance, self-consciousness is described as vigilance in one's outward body appearance and excessive monitoring. This persistent monitoring of his body is called self-surveillance, also called body surveillance, and it embodies the manifestation of behavior self-objectification (Calogero, 2012).

Self-objectification theory can help explain the phenomenon that male bodybuilders aim to improve their bodies to achieve lean, muscular, and bigger bodies. For instance, this behavior towards their body stems from their poor self-esteem and the tendency to objectify themselves and to impress people on social media by working out and dieting in extreme ways to achieve their ideal bodies. Bodybuilders believe that they have control over their bodies. At the same time, it is contrary that their irrational thinking is in control of their behavioral action to achieve impossible feats of the human bodies that result in dire consequences in physiological and psychological domains such as failure of the endocrine system and the possibility of developing muscle dysmorphic disorder. Bodybuilder places importance on other people's thinking rather than how they value and understand the motivation why they improve their bodies in the first place. What matters to bodybuilders is how they impress people on social media rather than impressing themselves, which leads to more dissatisfaction and a tendency to destroy one's body using substance abuse such as anabolic-androgenic steroids, extreme dieting, and working out.

Methodology

The study employed a mixed methodology with quantitative and qualitative elements. This methodology provides a better analysis of critical data and creates themes. In addition, the researcher posits that mixed methodology is a suitable method to explore and explain the phenomena of the study and the objectives. The methodology utilized the sequential explanatory design. The first phase was the quantitative method, in which the researcher collected and analyzed the data using General Linear Model Regression to predict the relationship of the variables. In the second phase, the qualitative method is utilized. Participants are purposively selected using data from the Quantitative Phase, and strict criteria are used to screen participants for the interview session. Thematic Analysis creates themes based on the participants' lived experiences.

Research Design

General Linear Model Regression Analysis was employed to examine the relationship between social media use, body shaming, and muscle dysmorphic symptoms. This approach models the dependent variable (muscle dysmorphia symptoms) as a linear function of two predictor variables: social media use and body shaming. The method quantifies how much each predictor contributes to the variance in muscle dysmorphia symptoms, using R-squared values to measure this variance. Additionally, interactions between predictor variables were analyzed to understand contextual variations in their influence on muscle dysmorphia.

A Thematic Analysis Approach was used to explore participants' qualitative data. This method identified patterns and constructed themes from transcribed interview data. The Analysis followed a structured process: transcription and data cleaning, coding to generate initial labels, categorization into sub-themes, and final theme identification. Two external auditors reviewed the coding process to ensure reliability. Thematic Analysis provided in-depth insights into participants' experiences, exploring the complex interplay between social media, body shaming, and muscle dysmorphia symptomatology.

Data Gathering Procedures

The study targeted gym populations in Metro Manila, specifically in Quezon City and Manila City, to capture the diversity of social contexts. A survey questionnaire was distributed to selected local gyms in these areas. Publication materials with a QR code were posted in gyms, with permission from gym managers, to invite participation. The materials provided details about the study and outlined participant criteria. Participants accessed the survey by scanning the QR code linked to a Google Form. The questionnaire began with demographic questions (e.g., age, diet, and training history) to ensure eligibility, followed by the Muscle Dysmorphic Disorder Inventory, the Social Media Appearance Preoccupation Scale (SMAPS), and the Body Image Shame Scale (BISS). At least 100 participants were recruited, which aligns with previous research by Baxter-Cox (2019), which indicated that a sample size of 100 is adequate for meaningful Analysis in gym-based studies. Data collection was optimized by visiting gyms during peak hours to increase engagement and ensure a representative sample within the study's time constraints.

For the qualitative phase, a purposive sampling method was used to select 6-10 participants for in-depth interviews. These semi-structured interviews aimed to gather detailed, rich data about participants' experiences within the gym culture and their perceptions of social media and body image. The sample size was based on recommendations from studies such as Baxter-Cox (2019), which found that a small, homogeneous sample provided sufficient detail for understanding individual experiences, and Brohede et al. (2016), which used a similar approach for studying body dysmorphic disorder experiences. This ensured data saturation while preserving the depth of individual narratives.

Data Measure

The Muscle Dysmorphic Disorder Inventory, developed by Hildebrandt, Lagenbacher, and Schuldt, is a 13-item self-report scale measuring symptoms of muscle dysmorphia, such as excessive exercise and body image disturbance. It employs a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) to evaluate three factors: Functional Impairment ($\alpha = .80$), Drive for Size ($\alpha = .85$), and Appearance Intolerance ($\alpha = .77$). The

overall internal consistency of the scale is $\alpha = .81$, with test-retest reliability of $r = .87$. A cutoff score of 39 points is used to identify significant symptoms.

Social Media Appearance Preoccupation Scale (SMAPS), developed by Zimmer-Gembeck, Hawes, and Pariz (2021), is an 18-item scale assessing appearance-related social media activities. It has two subscales: Appearance-Related Activity ($\alpha = .87$) and Online Appearance and Self-Presentation ($\alpha = .91$). Responses are collected on a 7-point Likert scale, from 1 (Strongly Disagree) to 7 (Strongly Agree), with scores averaged for each subscale. Example items include statements about engagement with fitness-related content and self-comparisons on social media. The Body Image Shame Scale (BISS), developed by Duarte et al. (2014), is a 14-item self-report scale measuring body image shame. It comprises two dimensions: internalized shame (self-negative evaluations) and externalized shame (concerns about others' judgments). The scale uses a 4-point Likert scale from 0 (Never) to 4 (Almost Always) and demonstrates high internal consistency ($\alpha = .92$).

A semi-structured interview guide was developed to explore the experiences of participants in-depth. Three experts in psychometrics and language validated the guide to ensure appropriateness. Interviews were conducted in English, Tagalog, or Taglish (a mix of English and Tagalog) to accommodate the linguistic preferences of Filipino participants.

Mode of Analysis

For the Quantitative phase, the study utilized General Linear Model Regression to analyze the relationship between the independent variables (social media influence and body shaming) and the dependent variable (muscle dysmorphic symptomatology). This technique enables the prediction of the outcome based on linear relationships between variables. The Analysis also incorporates the Coefficient of Determination (R-squared) to measure the variance explained by the independent variables. This method provided insights into how much social media use and body shaming contribute to the development of muscle dysmorphia symptoms.

For the Qualitative phase, a systematic coding process was used to analyze qualitative data from transcribed interviews. Responses were organized in an Excel spreadsheet, and the researchers independently generated and validated initial codes. The coding process involved categorizing responses into selective codes and refining these into themes. Any discrepancies were resolved through consensus among researchers, and the final list of themes was reviewed to ensure consistency.

An audit trail was maintained to ensure the transparency and reliability of the research process. This included documenting all methodological decisions and maintaining records such as transcripts, raw data, reflexive journals, and field notes. The audit trail followed a structured six-phase process (Nowell et al., 2017): a. Familiarization with Data: Researchers immersed themselves in various data sources, including transcripts and multimedia, to understand the study's context; b. Generating Initial Codes: Extensive coding knowledge was used to interpret and simplify transcribed data. Codes were organized in an Excel spreadsheet, with two external auditors enhancing credibility and reducing bias, c. Searching for Themes: Finalized codes were collated to develop potential themes. The researchers systematically sorted and formulated these themes, d. Reviewing Themes: Coded data were refined and reviewed for emerging patterns. Any uncoded or irrelevant data were reassessed or discarded, with themes undergoing continuous refinement, e. Defining and Naming Themes: Themes were named and defined clearly to convey their underlying narratives. An

external auditor with expertise in thematic Analysis reviewed the themes to ensure accuracy, e. It was producing the Report: The finalized themes were incorporated into the research report, supported by excerpts from the data and relevant literature. Member checking was conducted to validate interpretations and strengthen the study's credibility.

Ethical Approval

Before conducting the study, the researcher submitted the necessary documentation to the UST Graduate School Review Ethics Committee, including the Form 4 Application for Ethics Review of a New Protocol, the study protocol, and the Informed Consent Form. Approval from the University's Research Ethics Committee (REC) was obtained, allowing data collection.

Confidentiality

Participants received an Informed Consent Form detailing the study's purpose, procedures, confidentiality measures, and potential risks and benefits. This form, included in the manuscript appendices, ensured that participants were fully informed before consenting. Anonymity: After participation, researchers debriefed participants, emphasizing the anonymity of their contributions. Pseudonyms or labels were assigned in place of real names to protect identities. Data Security: Data were safeguarded using secure, password-protected databases stored on personal computers rather than cloud platforms, minimizing the risk of information breaches. During the quantitative phase, electronic survey forms (e.g., Microsoft Forms or Google Drive) prevented paper misplacement and data leakage. Upon data collection completion, all responses were downloaded, stored securely, and deleted from the online forms. Qualitative data, including voice recordings and thematic Analysis, were similarly secured.

Vulnerabilities and Risk Mitigation

The study recognized the potential vulnerabilities of male bodybuilders, particularly those susceptible to muscle dysmorphia. Identified risks included discussions of sensitive topics, such as body image, social comparisons, dietary practices, training intensity, steroid use, setbacks, and overtraining, which could trigger anxiety, self-doubt, or emotional distress.

Empathetic Approach: Researchers maintained a non-judgmental and empathetic attitude when discussing sensitive subjects. Strict confidentiality protocols were followed to reassure participants of their data security. Emotional Support: Participants were referred to professional counseling services if discussions evoked emotional distress. Researchers closely monitored participants' well-being and conducted regular debriefing sessions to address discomfort. Participants had the right to withdraw at any point without negative consequences, and their decisions were respected.

Results and Discussions

Quantitative Findings

Table 1: Demographic Profile of the Respondents

Group	Frequency	Percentage
Age		
18-25 y/o	79	79.0%
26-33 y/o	9	9.0%
34-41 y/o	9	9.0%
42-49 y/o	3	3.0%
Total	100	100.0%
Sex		
Male	100	100.0%
Total	100	100.0%
Training Experience		
1-3 years	74	74.0%
3-5 years	14	14.0%
5-10 years	5	5.0%
More than 10 years	7	7.0%
Total	100	100.0%
Workout Type		
Bodybuilding	100	100.0%
Total	100	100.0%
Workout Goal		
To lose weight	34	34.0%
To maintain weight	31	31.0%
To gain weight	35	35.0%
Total	100	100.0%
Steroid Use		
Taking Steroids	5	5.0%
Not Taking Steroids	95	95.0%
Planning to take Steroids	5	5.0%
Not Planning to Take Steroids	74	74.0%
May take Steroids	21	21.0%
Primary Reason for Going to Gym		
For Health	46	46.0%
For Aesthetic	44	44.0%
Part of the Training Regime	10	10.0%
Total	100	100.0%

Table 1 shows the demographic profiles of Filipino bodybuilders, including age, gender, training experience, workout type, workout goal, steroid use, and reason for going to the gym. For the age, 79 out of 100 respondents are from 18 to 25 years old, nine respondents are from 26 to 33 years old, nine are from 32 to 41 years old, and three are from 42 to 49 years old. In terms of sex, all 100 respondents are male. Regarding training experience, 74 respondents have only 1 to 3 years of experience. Fourteen respondents have been training for 3 to 5 years, five respondents have 5 to 10 years of experience, and seven respondents

have more than 10 years of training experience. For the workout type, all 100 respondents were training for bodybuilding. In terms of workout goals, 34 respondents are training to lose weight. Thirty-one respondents train to maintain weight, and 35 are to gain weight. When it comes to steroid use, there are only five respondents who are currently taking steroids, and 95 respondents are not. Five respondents are planning to take steroids, 74 respondents have no plan on taking them, and 21 respondents may take them. Lastly, in terms of their primary reason for going to the gym, 46 respondents said it is for their health. Forty-four respondents said it is for aesthetics, and ten respondents said it is part of their training regime.

Table 2: Effects of Social Media Use and Body Shaming on the Development of Muscle Dysmorphic Symptoms Among Filipino Bodybuilders

Variables	B	SE	Wald χ^2	p-value	Decision	Interpretation
Intercept	1.012	0.0456	492.786	0.000	H0 rejected	Baseline level
Social Media Appearance Preoccupation	0.036	0.0104	12.043	0.001	H0 rejected	Significant
Body Image Shaming Scale	0.037	0.0131	8.084	0.004	H0 rejected	Significant

Table 2 shows the effects of social media use and body shaming on the development of muscle dysmorphic symptoms among Filipino bodybuilders, using General Linear Model Regression analysis. The test resulted in the intercept with a coefficient of 1.012 and a p-value of 0.000, indicating a baseline level of muscle dysmorphic symptoms when there is no influence from social media appearance preoccupation or body image shaming. For the Social Media Appearance Preoccupation Scale, the coefficient is 0.036 and a p-value of 0.001, indicating that increased social media usage significantly increases the development of muscle dysmorphic symptoms. In terms of Body Image Shaming, the coefficient is 0.037 and a p-value of 0.004, indicating that experiencing an increase in body image shaming significantly increases the development of muscle dysmorphic symptoms. Overall, this indicates that both social media use and body shaming have significant effects on the development of muscle dysmorphic symptoms among Filipino bodybuilders.

Table 3: Prevalence of Muscle Dysmorphic Symptoms Within the Filipino Bodybuilding Community

Group	Frequency	N	Prevalence
MDDI Mean Score \geq 3.50	45	100	45%
MDDI Mean Score $<$ 3.50	55		

Table 3 shows the prevalence of muscle dysmorphic symptoms within the Filipino bodybuilding community, using the formula $\left(\frac{\text{Number of Positive Cases}}{\text{Sample Size}}\right) * 100$. There are 45 respondents with a Muscle Dysmorphic Disorder Inventory mean score of greater than or equal to 3.50, indicating positive cases of muscle dysmorphic symptoms. On the other hand, 55 respondents with Muscle Dysmorphic Disorder Inventory mean score of lower than 3.50. These 45 positive cases out of 100 respondents resulted in a 45% prevalence of muscle dysmorphic symptoms within the Filipino bodybuilding community.

Table 4: Relationship Between Social Media Use, Body Shaming, and the Development of Muscle Dysmorphic Symptoms

Variables	N	Spearman's Rho	P-value	Decision	Interpretation
Muscle Dysmorphic Symptoms * Social Media Use	100	0.400 (moderate positive correlation)	0.000	H0 rejected	Significant
Muscle Dysmorphic Symptoms * Body Shaming	100	0.387 (weak positive correlation)	0.000	H0 rejected	Significant
Social Media Use * Body Shaming	100	0.356 (weak positive correlation)	0.000	H0 rejected	Significant

Table 4 shows the relationship between social media use, body shaming, and the development of muscle dysmorphic symptoms using the Spearman Rank Correlation test. The correlation between social media use and the development of muscle dysmorphic symptoms was found to have a moderately positive correlation with a rho value of 0.400 and to be statistically significant with a p-value of 0.000. The correlation between body shaming and the development of muscle dysmorphic symptoms was found to have a weak positive correlation with a rho value of 0.387 and to be statistically significant with a p-value of 0.000. Lastly, the correlation between social media use and body shaming was found to have a weak positive correlation with a rho value of 0.356 and to be statistically significant with a p-value of 0.000.

Discussion

The study investigated the impact of social media use and body shaming on the development of muscle dysmorphic symptoms among Filipino bodybuilders, grounded in Social Comparison Theory and Self-objectification Theory. Results highlighted that young male bodybuilders (ages 18-25) with 1-3 years of training are particularly susceptible to these influences. Despite only 5% reporting steroid use, 26% considered or were unsure about using steroids, pointing out the underlying pressures from social media. A previous study conducted by Nicholson (2020) supported the results that there is a significant positive relationship between body image perception, social media engagement, and social comparison tendencies, which suggest high levels of negative body image perception are due to high rates of unfavorable social comparison. Other studies also supported which suggest there is a relationship between body image concerns between upward social comparisons and unfavorable social comparison (Nicholson, 2020; Fardouly et al., 2015; Mulgrew & Cragg, 2017; Van den Berg et al., 2002; Vartanian & Dey, 2013).

Quantitative Analysis revealed that both social media use and body shaming are significant predictors of muscle dysmorphia symptoms. Social Comparison Theory explains how exposure to idealized physiques on social media drives individuals to compare themselves, potentially leading to dissatisfaction and extreme behaviors. Previous studies displayed a possible harmful mix of unfavorable social media comparisons and body dissatisfactions, which results in a downward spiral of potentially harmful behaviors, negative body image, and social comparisons associated with the drive for muscularity and muscle dysmorphia (Schneider et al., 2017; Agthe et al., 2014). Self-objectification Theory suggests that

bodybuilders internalize these standards, focusing on self-surveillance and the perception of their bodies as objects, which intensifies body image issues.

The study found a 45% prevalence rate of muscle dysmorphic symptoms among participants, emphasizing the pervasive impact of social comparison and self-objectification in the bodybuilding community. Correlation analysis confirmed that higher social media preoccupation and body shaming are linked to more significant muscle dysmorphic symptoms. Additionally, social media use correlated with increased experiences of body shaming, reinforcing a cycle of body dissatisfaction. A related study also aligned with the results suggesting that in men who viewed photographs of muscle men, muscle dysmorphic symptoms increased along with the body shaming; it suggests that men who were exposed to body shaming are more likely to engage in activities and behaviors to reduce their body shaming experiences (Wilson, 2010).

Currently, the qualitative phase of this study is still ongoing to explore the lived experience of Filipino Bodybuilders and to describe their experience with challenges with muscle dysmorphia, body shaming, and social media use.

Conclusion

In conclusion, the study investigated the effects of social media use and body shaming on muscle dysmorphia symptoms among Filipino Bodybuilders, grounded in Social Comparison Theory and Self-objectification Theory. The study aimed to investigate bodybuilders' demographics, explore the influence of social media and body shaming on muscle dysmorphic symptoms, identify the prevalence rate, and understand the relationship between the predictors.

Findings revealed that young male bodybuilders, around age 18-25 with 1-3 years of training experience, are vulnerable to the effects of social media and body shaming. However, 5% of the participants used steroids, and 26% remained unsure about using them, displaying underlying pressures from unrealistic body standards seen on social media platforms. Regression analysis also revealed that social media appearance preoccupation and body shaming significantly increase the risk of muscle dysmorphic symptoms. Correlation supplemented the results with a moderate positive relationship between social media use, body shaming, and muscle dysmorphic symptoms.

Social Comparison Theory explains that bodybuilders resort to upward comparison behaviors with extreme behaviors regarding the idealized physique seen online that fuel dissatisfaction. Self-objectification theory explains that excessive self-monitoring and viewing one's own body as an object result in a decline in perceived body image.

Limitation

This study is subject to several limitations. First, the sample size and representation are limited, potentially affecting the generalizability of the findings to the broader population of bodybuilders. Expanding the sample in future research is necessary to strengthen external validity. Second, cross-sectional design restricts the study's ability to establish causal relationships or assess changes over time. Longitudinal research would provide more robust insights into the causal mechanisms and progression of muscle dysmorphia. Third, the exclusive focus on male bodybuilders limits the understanding of gender-specific differences.

Including female participants could uncover critical insights into the gender dynamics of muscle dysmorphia.

Additionally, while relevant, the study's focus on social media use and body shaming excludes other significant predictors such as neuroticism, self-esteem, body mass index (BMI), and peer influence. Future studies should consider these variables to provide a more comprehensive analysis. Finally, the subsample of steroid users was limited, which may not accurately represent the effects of anabolic steroid use. Future research should recruit a larger subsample to explore these effects more reliably.

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Declaration of Generative AI and AI-Assisted Technologies in the Writing Process

During the process of writing this manuscript, generative AI Technology such as ChatGPT was used only to assist in refining and summarizing the content of the methodology, discussions, and conclusion section to improve readability. The original content was independently written by the author(s), and the AI-assisted modifications were strictly limited to language and clarity enhancement.

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