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Digital Dissonance: Social Media and Mental Health

ABSTRACT

Alongside the growing presence of social media platforms such as Instagram and TikTok among adolescents and young adults (Charmaraman et al., 2021), concerns have arisen from people worried about their impact on body image and mental health. This narrative review addresses these concerns by examining how digital dissonance negatively impacts body image and contributes to lower self-esteem among people in the U.S., utilizing surveys and research that span the age range of ten to thirty-five. We identified key issues in the subject, such as the links between an increase in self-comparisons, setting unrealistic body standards, and increased risk for body dysmorphia with social media use, by reviewing seventy-six different sources online and through our self-conducted survey. Furthermore, the role played by social media influencers and the commonality of people posting heavily edited photos alongside users drawing self-comparisons is highlighted as a critical part of the overall issue, as supported by multiple sources such as Charmaraman et al. (2021), Franzoi et al. (2023), and Wick et al. (2023). Meta-analyses show that women tend to have a 2.3x higher body dissatisfaction than men after exposure to idealized imagery Wick et al., 2023), while individuals scoring high on perfectionism scales (e.g., ≥85th percentile) showed a 40% greater likelihood of engaging in appearance comparisons (Franzoi et al., 2023). Targeted interventions, such as media literacy programs teaching photo-editing recognition, reduced body dissatisfaction by 28% in RCTs (Dane & Bhatia, 2023), underscoring the need for policy-driven scalability.

KEYWORDS: *Body Image; Social Media; Body Dissatisfaction; Body Dysmorphic Disorder*

INTRODUCTION

With the usage of social media rising in adolescents and young adults (U.S. Department of Health and Human Services, 2023), concerns surrounding its effect on mental health have emerged. A 2025 content analysis revealed that 68% of top-liked Instagram posts by influencers featured edited images (e.g., Facetune, filters), yet only 12% disclosed alterations (Santoso et al., 2020). This gives the uninformed public a false sense of inspiration as they are being sold an unrealistic idea of what they should look like. The commonality of secretly edited posts and steroid use to achieve these results is also significantly adding to the problem. We believe viewing these images, as well as using social media in general, will promote body dissatisfaction and may be related to body dysmorphia.

Body dysmorphia is a mental condition characterized by spending a lot of time worrying about one's appearance (Litin, 2022). Adolescents (10–19) exhibit heightened neural sensitivity to social feedback (Gwon, 2018), correlating with a 1.59× higher odds of body dissatisfaction after 2+ hours of daily use (Sagera et al., 2022). Concerns have grown for the vulnerable users of social media who may envy or doubt themselves because of what they are being fed online (El Asam & Katz, 2018).

The scope of this study aims to create a comprehensive and detailed understanding of social media's effects on one's body image, through a thorough analysis of multiple studies and a self-conducted online survey. Our overarching goal is to identify social media's role in the digital dissonance of body image. The goal is to find correlations to body image specifically and to see where social media comes into play with the sudden rise in body dysmorphia (Kaur et al., 2020).

Mental health is a growing field of study and an area of concern (Beyari, 2023). The root of the problems

may be seeded in one of the most addictive and ever-growing pastimes the world has ever seen (Sun & Zhang, 2021). An informed population would be able to notice digital dissonance and unrealistic expectations that aren't meant to be possible. Digital dissonance is the feeling of discontent in an individual who doesn't feel a similar perception of their real life compared to their online experience (McCallum, 2023). The hope is to protect vulnerable people online by informing them of the adverse effects of line use can have on one's self-appearance.

METHODS

When searching for sources, we utilized a combination of literature to demonstrate the impact of social media on people's self-perception and reality. Firstly, we found various sources originating here in the U.S., ranging from 2010 to 2025, using platforms such as Google Scholar, PubMed, and Scopus. When searching, we focused on the following keywords: "social media" and "body image." Titles using Boolean terms such as "AND" and "OR," which combined the keywords, were also included. We decided on the age range of 10-35-year-olds since 18-28-year-olds were found to spend the most time online compared to other age groups (Smith & Anderson, 2018). The survey used to make the age range claim doesn't mention those under 18, but mentions that 29-30- and 30–49-year-olds are online often. A wider age range was used to adjust in both directions to allow for teens and slightly older adults in the test group. While maintaining the criteria that all studies are U.S.-based, we ensured that the studies included both genders equally, not disproportionately, to represent the population. If a source favored women, then another source would be found to provide the men's side. Sources' titles and abstracts were reviewed and further read for proper eligibility. As a group, we peer reviewed each other's sources, and a majority vote of at least three members out of 5 was needed to remain eligible when disagreements arose.

We compiled our findings into a singular document and used the resources as necessary. We didn't focus on any specific ethnicity or income when searching for studies. We incorporated studies that included multiple social media platforms (singular, multiple, or plural) but did not include studies that weren't appearance-based social media (blogs or business). Studies talking exclusively about men and that meet our criteria weren't found, but studies about women exclusively or both men and women were found. These sources were sorted alphabetically using artificial intelligence for convenience after being cited using APA format by hand. Information from various sources, like articles, was primary. Still, a self-conducted survey was given to students (high school and college/university), which came from the HBond summer internship program in San Antonio, Texas, Instagram, and connections on LinkedIn to gain a current idea of people's experiences with social media and body image.

The survey was distributed on each member's Instagram story, where further details were given about the study. Members of the Internship were emailed the link. A link was used to reach the survey, followed by a description of what the survey was meant for and what we would do with their responses. Only people who wanted to participate would click the link and begin the short quiz. A total of 52 anonymous respondents answered fill-in-the-blank and multiple-choice style questions. No identifying questions were listed, and only gender and age were asked of each respondent. 86.6% (n = 45) of responders were 14 - 22 years of age, and 100% of responders have used social media. Our gender was relatively equal at 46.2% female (n = 24) and 53.8% male (n = 28). The survey ran from June 9th to June 12th, 2025, during which each volunteer submitted a single response. Out of 76 articles read and reviewed, 11 were used.

RESULTS

BODY DISSATISFACTION

The studies we reviewed overall show that social media significantly influences adverse effects on body image through upward social comparisons

(Festinger, 1952). Specifically, social media users tend to compare themselves to curated, idealized portrayals, leading to negative self-evaluation.

EXPERIMENTAL EVIDENCE

Wick et al. (2023) conducted a study of 226 individuals (82.3% female, 17.7% male), where they were shown Instagram images of women and men for three minutes. In the experimental group, beauty standards were shown, and the control group was shown body diversity. Results show a significant difference between the groups. Exposure increased body dissatisfaction in the experimental group but reduced it in the control group. The data revealed substantial harmful effects on women's mood after exposure, with men showing comparable (though less pronounced) tendencies.

GENDER DIFFERENCE

Women's self-reported mood scores dropped 22% post-exposure to idealized content vs. 9% in men (Wick et al., 2023), aligning with fMRI data showing heightened amygdala activation during self-comparisons (Lewallen & Behm-Morawitz, 2016). Their study demonstrated that exposure to curated content triggers comparison tendencies, increasing the likelihood of extreme dieting and exercise behaviors. They highlighted how idealized female imagery promotes upward social comparisons, often leaving women feeling inadequate.

Lavani Pop et al (2022) surveyed 427 medical students on body esteem, self-esteem, and loneliness. 80.6 percent of those surveyed were female, and 71.6 percent came from urban areas. The survey was voluntary, anonymous, and without any compensation. In this study, they acquired three types of data (socio-demographic, anthropometric, and self-rated items) associated with satisfaction with physical and mental health. They assessed self-esteem (Rosenberg Scale), body-esteem (Body Esteem Scale for Adolescents and Adults), and loneliness (UCLA Loneliness Scale). Results showed a strong positive correlation between Snapchat use and self-esteem, while weight status negatively correlated with TikTok use. Over 75% of participants exercised for weight loss or prevention, and overall body esteem was high. However, nearly half reported moderate to high loneliness levels. Age and gender played key roles: younger users had higher loneliness, depression, and social media usage. Men scored significantly higher in self-esteem and mental health than women.

Charmaraman et al. (2021) looked at 513 people with an average age of 12.9 and a ratio of 56% female to 44% male. The study found significant associations between social anxiety and appearance comparisons with social media-related body dissatisfaction. The researchers noticed this was especially common among celebrities and teenagers, and females faced a more substantial impact from these issues. Additionally, people who mentioned they spent more time editing their looks visually for things like social media validation also reported the highest level of impact. Overall, it tells us how being exposed to an idealized body image online at a young age contributes to adverse effects on one's mental health, even before high school.

Santoso et al. (2020) synthesize research on adolescents and young adults, analyzing psychological mechanisms like social comparison, appearance-focused content, and influencer engagement. While identifying both beneficial and harmful effects, the analysis reveals particularly strong associations with adverse outcomes, especially body dissatisfaction and diminished self-esteem.

Rounsefell et al (2019) examined the correlation between exposure to social media body image and a change in diet among 18-30 year 30-year-olds. Research was conducted using six databases. It explores the effects of social media on body image, such as social media causing changes in diet. The sample size is college-aged females, and the study shows results proving that social media caused a majority of them to experience body dissatisfaction

and changes in diets due to internal struggles from body image.

SOCIAL MEDIA USAGE

Two studies linked the amount of time spent and the tendency to use social media. Based on people's behavior, body dissatisfaction was found. Time usage and participation trends have been found to affect body dissatisfaction.

Sagera et al (2022) researched the effects that social media's body image can have on adolescents, such as eating disorders and mental health issues. The researchers conducted a survey that reached out to 11,248 high school students (5,070 students were used in the sample size) who were aged 14-19 years old in Northwest Louisiana. This survey consisted of 15 questions about the students' mental health and use of social media, aiming to evaluate the mental well-being of adolescents who use social media. The results showed that students who used social media for more than 2 hours daily had 1.59 times more odds of self-reporting body image issues. Overall, the data from the surveys showed that an increased use of social media was associated with body image issues in adolescents aged 14-19.

In this study, Loreinne, A. (2023) examined 225 young adults (110 male, 115 female) aged 18-24. Researchers assessed TikTok trend awareness through structured questionnaires, focusing specifically on body-related content, including fake body imagery and fitness/diet trends. Analysis revealed a slight positive association between fake body trends and body image concerns, with higher body dissatisfaction linked to greater engagement with these trends.

BODY DYSMORPHIA

Body dysmorphia and social media were linked in two studies. Social media wasn't found to be caused by social media; however, the symptoms of BDD were found to be sustained while using social media, and an increased likelihood of BDD was found while using social media.

Barbara Jiotsa et al. (2021) surveyed 1331 individuals aged 15-35, comprising 193 individuals diagnosed with eating disorders and 1138 participants from the general population. They all completed a survey on image comparisons, post frequencies, and followed accounts. The survey was voluntary and went over sex, age, degrees, and current height and weight to measure body mass index (BMI) in the first part of the survey. It then asked about people's social media use, body image, and did an eating disorder screening. At the end of the study, 76 were excluded because they didn't fit the age requirement of 15-35. They confirmed the connection between body dissatisfaction and comparing one's body to those they see online. They mention that this could be a result of wanting to be thin, could result in comparison to others, and vice versa; comparing yourself to others makes you want to be thin. The goal of the study wasn't to identify eating disorders in participants, but they did find that young adults had a high chance of contracting one. This was recognized with the scoff test, which asked five questions., If you answer two or more with "yes," it suggests an eating disorder. This predisposition of young people to develop an eating disorder had a positive effect in 71% of young adults.

Cassie Level et al (2024) performed a clinical study with 78 participants with body dysmorphia disorder or BDD. The participants performed various tests regarding their peer relationships and social media use. They tested the participants' general victimization, appearance victimization, peer support, appearance co-rumination, and social media use to see how BDD affects younger people. They compared their findings with previous studies conducted in previous years. The Social media test found that young BDD patients posted less but compared and invested more into their appearance. This was based on a 0-5 scale representing how much time they spent on each item. The total possible score was based on the item count in each

section. Posting images had two items with a max score of 10, appearance comparison had three items and a max score of 15, and appearance investment had five items and a max score of 25. Using Cronbach's alpha to determine the reliability of the behavior, we get subscales of $\alpha = 0.55$ or lower reliability for posting, showing very little relation between BDD and non-BDD adolescents in that regard. However, they score a $\alpha = 0.95$ and $\alpha = 88$ subscales for appearance comparison and investment, showing a reliable behavior in adolescent BDD patients.

Franzoi et al. (2023) looked at 209 people aged sixteen to eighteen to study the correlation between social media usage and body image in the U.S. The researchers found that looking at appearance-based content on social media was heavily associated with a more negative impact on one's body image. This claim is coming from their finding of an increase in body dysmorphic disorder (BDD) symptoms linked to viewing influencer content, posting selfies, and participation in comparisons online by social media users mentioned above. Additionally, the teens with perfectionistic qualities were found to be more susceptible to a taint in their body image when viewing idealized photos online. The results support social media use in heightening digital dissonance, as even users aware of these unrealistic standards can be impacted.

SURVEY

A self-conducted survey was posted on each member's Instagram story and distributed to the 2025 summer HBond internship participants, who consisted of 27 high school and college students. A total of 52 responses were recorded. The following figures show the results in graphs and charts, followed by descriptions that provide more detail to better understand the results (Figures 1-4).

Figure 1: Have you ever compared your body to someone you saw on social media?

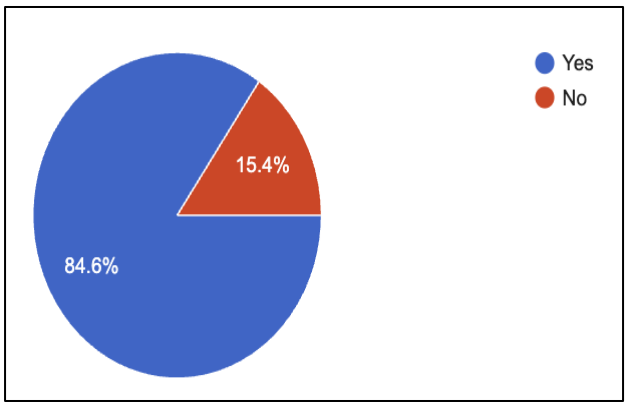

Figure 2: Do you believe social media influences your mental health and body image?

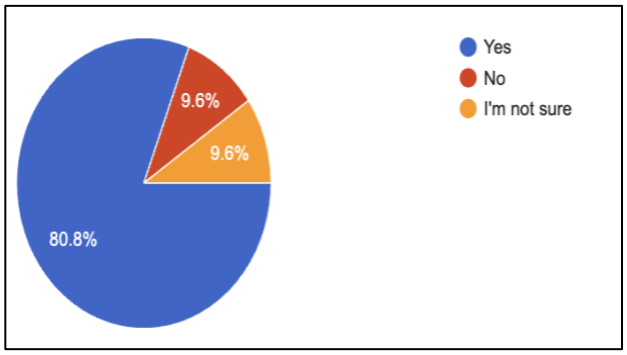

Figure 3: How much time do you spend on social media daily?

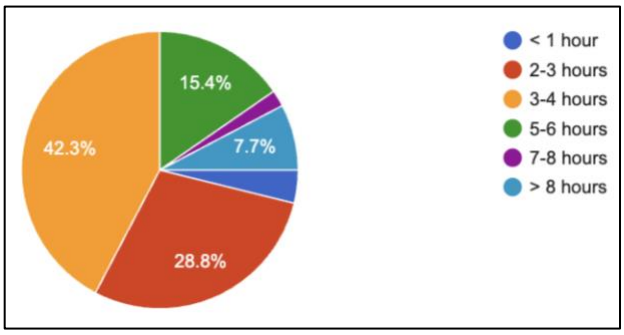

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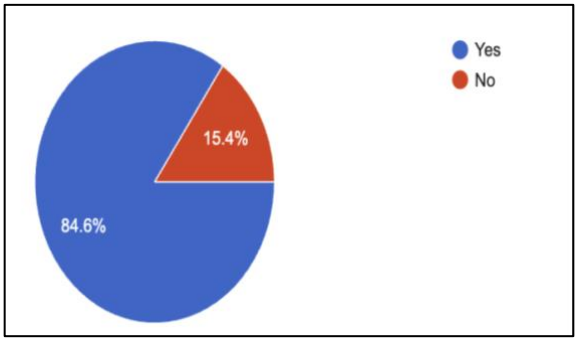
Figure 4: Have you ever compared your body to someone you saw on social media?



DISCUSSION

All of the studies significantly emphasize the correlation between the use of social media and body dissatisfaction. The women in the studies, specifically the (Wick et al) article, tend to experience a more significant effect of body dissatisfaction, which leads them to more extreme methods of achieving the ideal body type portrayed on social media. This does not mean that the men in the studies did not experience any effect; they just scored significantly higher in self-esteem and mental health than women. Research also found a strong correlation with social anxiety and appearance comparisons on social media. This notice was especially common among celebrities and teenagers. Studies also show that college-age females experience body dissatisfaction and changes in diet due to struggles with body image.

Two studies on social media usage focus on linking body dysmorphia or dissatisfaction and social media use. The first study by Sagera et al (2022) collected data from teens aged 14 to 19 years old and discovered that those on social media for more than 2 hours a day suffer from body image dissatisfaction. The higher use of social media leads to worse effects on how people feel about their bodies, due to the exposure of unrealistic body types displayed throughout these apps. This showed us that teens are vulnerable to feeling body dissatisfaction as well. Looking into the youths' vulnerability allows us to look into preventative measures for youth protection. In the second study, Loreinne, A. (2023) collected data from young adults who were aged from 18 to 24 and discovered that being more aware of or exposed to social media body trends on apps like TikTok that display unrealistic, edited body images can result in viewers feeling unhappy with their body image. This, in particular, was important because edited and unrealistic photos show very hard-to-reach ideals. Edited and unrealistic photos may drive body dissatisfaction since they show what's objectively unreal. Overall, both studies suggest that the heavy usage of social media can negatively affect how viewers view their body image and increase body dissatisfaction.

Even though the use of social media does not directly cause body dysmorphia, social media can make it more extreme and worsen the symptoms. In this study, Jiotsa et al. (2021) gather data from individuals who emphasize how online comparisons of their bodies and body images increase the risk of developing BDD. Level et al. (2024) examined individuals with BDD. They discovered that while they posted less frequently, they were more engaged in appearance-based comparisons and placed excessive importance on their online image, behaviors closely linked to core BDD symptoms. Similarly, Franzoi et al. (2023) found that adolescents exposed to influencer content, selfies, and idealized social media imagery showed a marked rise in BDD symptoms, particularly among those with perfectionistic tendencies. Together, these findings underscore social media's significant role in perpetuating and exacerbating body dysmorphia, especially among at-risk youth.

The limitations for this narrative review were that there were a couple of sources skewed towards the female population, focusing our data less on male social media engagers. Another limitation was that our survey responders all used social media, meaning that we couldn't obtain data on people who didn't use social media. This means we didn't have a set of data to compare and evaluate whether people's perception of their bodies was altered by

using social media. Moreover, our survey only had a sample size of 52 participants, causing our data to lack a high representation. The survey was only sent out via Instagram story, causing the reach of the study to be limited to one social media platform. Next, we only used US-based sources, causing the exclusion of high-quality studies internationally. Lastly, we only used social media in our research, while other forms of body image are present, such as in magazines, movies, and commercials.

Our sources had limitations such as demographic biases ranging from an equal demographic to exclusively a female demographic. Sources such as (Wick et al, 2023), (Lewallen & Behm-Morawitz, 2016), and (Lavani Pop et al, 2022) had either a female-dominant demographic or only females used in the study. Moreover, Lewallen & Behm-Morawitz (2016) mainly reached Caucasian women participants across the United States. The (Lavani Pop et al, 2022) has an issue with directly objectifying the analysis of their data due to leaving their study up to the possibility that social media may lead to dissatisfaction through self-isolation rather than body image.

The hope is that this review will inform and prevent people from being critical of themselves. Social media companies would benefit their users if they mentioned what long-term usage could result in. More action from schools and parents would be a great way to reach more people sooner and could help prevent issues later on. The older individuals would benefit from policy changes on social media or even preference settings. The ability to filter what you see may be very beneficial for people who compare themselves to what they see online. This filter would also benefit the parents of the children if they wanted to filter the children's social media use further.

CONCLUSION

In conclusion, data suggest that adolescents with baseline high social media use (≥3 hrs./day) were 3.1x more likely to develop negative self-evaluation over 2 years (OR: 3.1, $p<0.01$; Charmaraman et al., 2021). Even among users who primarily consume 'non-appearance' content (e.g., news, 18% of our sample), 41% reported exposure to idealized imagery that triggers self-comparisons (Fig. 7). The use of social media in youth is particularly notable, as they are more prone to self-esteem and body image issues. Moving forward, platforms could mitigate harm by using France's model of mandatory editing disclosures, which reduced self-objectification by 22% (Jiosta et al., 2021), while schools should prioritize media literacy training proven to curb body dissatisfaction by 28% (Dane & Bhatia, 2023). Social media has also been shown to have effects on diagnosed body dysmorphic patients and can show signs of BDD patients engaging in comparisons that have demonstrated 35% worse severity over 6 months (Level et al., 2024). These trends carry implications beyond individuals, including rising adolescent eating disorder cases linked to social media triggers (CDC, 2024) and ethical imperatives for advertisers to champion unedited content, as Dove's Real Beauty campaign achieved without sacrificing profitability (Santoso, 2020). The survey shows that even when people use social media for neutral purposes like news, they still encounter harmful beauty standards. Future research should focus on vulnerable groups like LGBTQ+ youth (who face 2.1 times higher risk) and study whether platform changes like TikTok's body-positive algorithm help.

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Marcos Serda[1], Nabeel Saigal[1], Rafay Muhammad Baig[1], Bilal Amin[1,2], Mikyle Sheikh[1]

[1]LIgHT-HEALS Integrated Summer Internship Program, HBond Foundation, 6918 Camp Bullis Rd, San Antonio, TX 78256.

[2]Corresponding Author E-mail:
bilalamin15448@gmail.com

Note: All authors contributed equally to the conception, development, and writing of this manuscript.