Systematic Review

Increase in Body Dysmorphia and Eating Disorders Among Adolescents Due to Social Media

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ABSTRACT

In this review, an analysis of the studies pertaining to the role of social media in body dissatisfaction eventually leading to body dysmorphia and eating disorders was conducted.

Objective: The aim was to review how social media creates the urge of attaining unrealistic body images which is impossible in real life but possible in real-life.

Methods: Different search mediums including PubMed, Science direct, and Google Scholar were used in order to find out the effects of social media in influencing body dissatisfaction. The inclusion criteria were based on the selection of research articles from 2014-2021 which correlated social media with eating disorders & body dysmorphia. Additionally, the articles that were not original researches, abstract only and not in English were excluded. After exclusion of irrelevant sources, duplicated article, abstract only & articles published before 2014, Total 25 articles were selected for the purpose of a systematic review.

Result: As per this systematic review, body dysmorphia & eating disorders were related to high levels of social media addiction. Moreover, how much social media has negatively impacted both the physical health of young adults, especially in regards to disordered eating patterns as well as mental health. Social comparison in order to attain unrealistic images on social media results in body dysmorphia and body dissatisfaction.

Conclusion: By reviewing different studies and finding out the effects of social media on body dysmorphia it is revealed that social media can highly influence various types of eating disorders like anorexia nervosa, bulimia nervosa, and binge eating disorders.
level, sensual orientation, socio-economic status and aptitude which are commonly seen as separate factors in involving a combination of cultural and social demographic variables [4]. The relation between exposure to an unattainable and unrealistic image on social media and how it affects the ethnicity of Latina girls should also be considered by researchers. The use of social media as a form of precaution, researchers can be encouraged to take part in content analysis to visually check every day content to monitor Latina girl’s exposure while being online [5]. Social media Programs that will propose sociocultural pressure on Latina adults cause them to adopt thin ideals, leading to dieting, body dissatisfaction, and lots of other adverse effects, hence increasing eating-disorder risks. Clinicians should integrate culture-specific and family-based modes of intervention. Therefore, the risk of dysfunctional eating of Latina women should be minimized. It’s vital to grasp that some risk factors will contribute to body dissatisfaction and eating disorders in Latina women, which isn’t acceptable by their family [5].

**METHODS**

**Protocol & Registration:** Systematic review of this study was reported and conducted in line with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. A pre-published protocol (PROSPERO CRD42017065324) was used in it.

**Search Strategy & Data Sources:** Pub med, Embase, Scopus, Science direct, Cochrane Library, Directory of Open Access Journal, Medline, Medline plus, Science open, Open DOAR, Biomed Central, PLOS Public Library of Science, Web of Science, ISTOR, Semantic Scholar, Europe PMC, SID (scientific information data base). Research articles from the year 2014 to 2021 were selected.

**Data Extraction and analysis:** Research articles were selected from researches done on the social media's impact on eating disorders and body dissatisfaction and data was extracted from them. 500 articles were initially selected from various data bases. 250 of them were excluded as they were duplicates additionally 150 articles were excluded because they were published prior to 2014 or that they weren’t in English. 50 articles from the remaining were further excluded as they were meta-analysis, reviews, abstracts only or that the subjects of the study weren’t age appropriate according to this systematic review. The 25 articles that remained were included in this systematic review. Inclusion Criteria was Articles from the year 2014-2021 and the articles which correlated social media with eating disorders and body dysmorphia. Exclusion Criteria was the articles published prior to 2014, Review articles, meta-analysis, articles that weren’t accessible beyond the abstract and the articles that were not in English language.

**RESULTS**

The data collected as demonstrated in following tables depicts a clear co-relation between social media and boy dysmorphia/ eating disorders. The 25 articles that were chosen for the purposes of the review, through a myriad of ways established that social media and its growing influence on the society especially amongst youth in different population is a pivotal catalyst in the formation of body dissatisfaction, unhealthy ideals and eventually seriously detrimental eating disorders.

**Figure 2:** PRISMA flowcharts for study selection

| Study Design | Study Population | Study Period | Body Image-Disorder Measure | Evidence Study Design | Study Outcome | Exclusion Results |
|--------------|-----------------|--------------|-----------------------------|-----------------------|---------------|------------------|
| Experimental study design [6] | 20 college going women, mean age 22 years | Five days | Body dissatisfaction | Systematic review of this study | Increase Body Dysmorphia and Eating Disorders Among Adolescents Due to Social Media | Increase Body Dysmorphia and Eating Disorders Among Adolescents Due to Social Media |
| Observational study design [7] | 200,000 twitter users | 14 year | Eating Disorder and social media | | | |
| Observational study design [8] | 15 year olds | 14 year | Eating Disorder and social media | | | |
| Observational study design [9] | 35 year olds | 14 year | Eating Disorder and social media | | | |
| Observational study design [10] | 15 year olds | 14 year | Eating Disorder and social media | | | |
| Observational study design [11] | 100 adolescents and young adults | 14 year | Eating Disorder and social media | | | |
| Observational study design [12] | Adolescents | 14 day | Eating Disorder and social media | | | |
| Observational study design [13] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [14] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [15] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [16] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [17] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [18] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [19] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [20] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [21] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [22] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [23] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [24] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [25] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [26] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [27] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [28] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [29] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [30] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [31] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [32] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [33] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [34] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [35] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [36] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [37] | 150 patients | 4 week | Eating Disorder and social media | | | |
| Observational study design [38] | 150 patients | 4 week | Eating Disorder and social media | | | |
This review is to establish the potentially detrimental effect social media can have on the youth in regards to body image dissatisfaction also how it eventually leads to disordered eating and body dysmorphism. Twenty-five research studies were selected and the data they provided was analyzed in order to understand the extent to which this problem exists and how social media is directly contributing to eating disorders/body dissatisfaction across different demographics. While most of the studies that were taken into account proved that social media indeed have a direct relation in body dissatisfaction and can lead to severe consequences, different methods and demographics were used across these studies to derive this common conclusion. The most commonly used method was cross-sectional study, which was employed in 9 of the 25 selected studies. The purpose of this type of research design to ask the subjects about their perspective and figure out the root of the problem and to get a clear idea about the extent of the issue. In aforementioned studies the subjects were often young and therefore more likely to be exposed to social media and influenced by it. This type of studies can be also done in large population therefore giving a wide array of explanations about the ways of how social media exposure directly correlates with body image issues. Other common type of study designs used was experimental study and snowball study which brought a much-needed diversity in the types of research methods for this issue. Griffiths et al, 2018, Oshana et al, 2020 dealt with body image issue in sexual minority men due to social media. It was discovered by both that men of alternate sexuality are more at risk of developing body image problems leading to body dysmorphic and eating disorders as compared to heteronormative men. The increased use of anabolic steroids due to social media influence was also observed [7,14]. Similarly, women present an increased risk of facing bodily image issues as eight of the studies chosen, selected women as their prime subjects. As seen in Benet 2019, Fardoully 2014, Restrepo 2018, Waysle 2020 amongst others, women who spent more time on social media across multiple platforms such as Facebook, Instagram, Pinterest etc., were more likely to develop body image concerns or some type of dissatisfaction with one’s self [6,9]. Young adults and adolescents were also the majority demographics of the selected studies suggesting that younger demographic is shown to be more affected by social networking and the health concerns it presents. Fourteen of the selected studies chose young people as their subjects while 11 studies chose subjects from varied age groups including adolescents and young adults. Benet 2019, Fardoully 2014, Restrepo 2018, Ioannidis 2021, etc., established firm relationship between use of social networking and the rise of bodily image concerns the youth of today face [6,9,10,11].Studies like Wang 2019, Waysle 2020, Branley 2017, etc. examined posts from across different social media websites including Instagram, Twitter, Tumblr, Facebook etc. to discover that many of these platforms host groups or pages that support pro anorexic lifestyle and influence users of these platforms to engage in disordered eating [8,21,4]. Another common thread seen being promoted on social media with similar repercussions is ‘Thinspiration’ which promotes rapid and unhealthy weight loss by demonstrating ‘success stories’.

### Table 1: Summary of literature review

| Study | Design | Sample | Methods | Findings |
|-------|--------|--------|---------|----------|
| Discussed | Observational study | Young adults (16-20 yrs) | Thematic analysis | There is an increased risk of body dysmorphism in young people. |
| Sectional | Cross-sectional design | Young adults | Cross-sectional | Disordered eating or mood. |
| Sectional | Cross-sectional design | Young adults | Cross-sectional | The increased use of anabolic steroids due to social media influence was also observed. |
| Sectional | Cross-sectional design | Young adults | Cross-sectional | Young adults and adolescents were also the majority demographics of the selected studies suggesting that younger demographic is shown to be more affected by social networking and the health concerns it presents. |

**DISCUSSION**

This review is to establish the potentially detrimental effect social media can have on the youth in regards to body image dissatisfaction also how it eventually leads to disordered eating and body dysmorphism. Twenty-five research studies were selected and the data they provided was analyzed in order to understand the extent to which this problem exists and how social media is directly contributing to eating disorders/body dissatisfaction across different demographics. While most of the studies that were taken into account proved that social media indeed have a direct relation in body dissatisfaction and can lead to severe consequences, different methods and demographics were used across these studies to derive this common conclusion. The most commonly used method was cross-sectional study, which was employed in 9 of the 25 selected studies. The purpose of this type of research design to ask the subjects about their perspective and figure out the root of the problem and to get a clear idea about the extent of the issue. In aforementioned studies the subjects were often young and therefore more likely to be exposed to social media and influenced by it. This type of studies can be also done in large population therefore giving a wide array of explanations about the ways of how social media exposure directly correlates with body image issues. Other common type of study designs used was experimental study and snowball study which brought a much-needed diversity in the types of research methods for this issue. Griffiths et al, 2018, Oshana et al, 2020 dealt with body image issue in sexual minority men due to social media. It was discovered by both that men of alternate sexuality are more at risk of developing body image problems leading to body dysmorphic and eating disorders as compared to heteronormative men. The increased use of anabolic steroids due to social media influence was also observed. Similarly, women present an increased risk of facing bodily image issues as eight of the studies chosen, selected women as their prime subjects. As seen in Benet 2019, Fardoully 2014, Restrepo 2018, Waysle 2020 amongst others, women who spent more time on social media across multiple platforms such as Facebook, Instagram, Pinterest etc., were more likely to develop body image concerns or some type of dissatisfaction with one’s self. Young adults and adolescents were also the majority demographics of the selected studies suggesting that younger demographic is shown to be more affected by social networking and the health concerns it presents. Fourteen of the selected studies chose young people as their subjects while 11 studies chose subjects from varied age groups including adolescents and young adults. Benet 2019, Fardoully 2014, Restrepo 2018, Ioannidis 2021, etc., established firm relationship between use of social networking and the rise of bodily image concerns the youth of today face. Studies like Wang 2019, Waysle 2020, Branley 2017, etc. examined posts from across different social media websites including Instagram, Twitter, Tumblr, Facebook etc. to discover that many of these platforms host groups or pages that support pro anorexic lifestyle and influence users of these platforms to engage in disordered eating. Another common thread seen being promoted on social media with similar repercussions is ‘Thinspiration’ which promotes rapid and unhealthy weight loss by demonstrating ‘success stories’ and give the impression of ‘ideal’ body. This type of ‘inspiring’ content creates insecurity among the users about their body and figure even when they are perfectly healthy. A subset of ‘thinspiration’ is ‘fitspiration’ which similarly portrays muscular and bulky body type as easily achievable and desirable. Without proper knowledge of healthy weight loss or muscle gain, users try to achieve this by using short cuts of disorder eating such as starvation and induced vomiting. As well as indulging in products like ‘detox’ tea and diet pills which are just...
laxatives and anabolic steroids which can cause severe liver and kidney problems [15]. After analyzing the data of the aforementioned twenty-five research studies there is no doubt that social media does indeed contribute a great deal in the development of body image concerns that can lead to eating disorders and body dysmorphia. Women and young adults, it appears, are the demographics most affected and eating disorders being the most common outcome of dangerous body ideals set by social media.

C O N C L U S I O N S

In teenagers especially, Anorexia Nervosa (17%), Bulimia Nervosa (2%) and Binge Eating Disorder (2%) are among the most common Eating Disorder types that lead to body dysmorphia. Some cross-sectional studies conclude that almost 93% of men and women are dissatisfied with their body type which is somehow connected to social media addiction. People compare themselves with others having unattainable or unrealistic images on social media, which creates a feeling of unhappiness.

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