

Review Article

Influence of Social Media on Body Dissatisfaction in Adolescents and Increasing Risk of Developing Eating Disorders: A Systematic Review

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Submitted: 27 January 2022

Accepted: 10 February 2022

Published: 11 February 2022

ISSN: 2578-3572

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OPEN ACCESS**Keywords**

- Adolescents
- Body dysmorphia
- Social media
- Eating disorders

Abstract

We always had the concept of perfect images – society has always influenced the way people should look, so body dysmorphia due to social beauty standards has always been around. These perfect images seem to have a deep impact in the adolescent's relationship with their body thus leading to maladaptive behaviors: restrictive dieting, excessive exercise and vomiting. Since the main source of these rule models resides in social media it was mandatory to further explore the part of social media in body dissatisfaction and eating disorders among teenagers.

By reviewing 12 different papers about body dissatisfaction, social media and eating disorders we attempted to further explore this complicated relationship and to reunite information that indeed corroborates the theory that social media has a deep impact in increasing numbers of eating disorders among adolescents.

After our search review we concluded that there is a positive association between social media, body dissatisfaction in teenagers and eating disorders. Plus, this phenomenon is being increasing in numbers for a few years and it peaked after COVID-19 and the lockdown.

ABBREVIATIONS

ED: Eating Disorders; AN: Anorexia Nervosa; BN: Bulimia Nervosa; App: Application

INTRODUCTION

Body dissatisfaction is the negative self-evaluation of one's appearance; it's the feeling of not being up to certain standards created by society in terms of what one should look like. This comes from physical appearance comparisons and self-objectification - people often compare themselves with social media imagery containing representations of very thin bodies "thinspiration" or lean and muscular bodies "fitspiration", leading to feelings of depression, anxiety and extreme stress that drive them to dedicate more time investing in their body image by dieting or excessive exercise. These effects might be more severe with the consumption of social media content than traditional

media (TV, magazines) because there is a continuous exposure, there is always new content and there is a possibility in engaging with other users with real time evaluative components – getting a like or a comment on a photo they just posted [1].

Although this feeling of inadequate body image can happen in any given age it's more common, and growing in numbers, amongst teenagers who are more likely to be influenced by the display of a "ideal body type" given the fact that they are going through a constant changing process, and they are extremely sensitive to third parties' opinions and criticism. It's indicated that as many as 70% of adolescent girls would like to have a smaller body size [2]. This may have serious consequences in building their self-esteem what is proven to lead to engagement in eating disorder behaviors that are motivated by an intangible body image. These eating disorders are defined as afflictions in which people suffer a severe disruption in their eating patterns,

thoughts and emotions leading to an overly obsessed, and not healthy, behavior towards food and weight [3].

Adolescents represent one-fifth of world's population and the World Health Organization calculated that over 50% of mental disorders begin during this period of life [4]. Eating disorders (ED) are among the most pernicious mental illness beginning in adolescence, the mortality rate for anorexia nervosa (AN) is much higher in comparison with other psychiatric disorders: the standardized mortality ratios are 5.86 for AN, 1.93 for bulimia nervosa (BN) and 1.92 for EDs not otherwise specified [5]. This highly increases the risk of developing both pathological physical conditions such as: delayed puberty, digestive/urinary abnormalities and mouth ulcers; and psychological conditions: depression, suicide attempts, anxiety and substance abuse [6].

The desire for obtaining social approval concerning how they look and whether their body is "attractive" is important for teenagers and the building of their self-esteem [7]. Every teenager has its own personality and personal convictions which affects the degree of influence that social media has on them and their perception if they have or not the "dream body". It's hard to have a clear notion of what the ideal body represents, since it may vary from individual to individual and from society to society, but the common trace is that for females the perfect figure normally is about being thin ("thinspiration") and for males is about being muscled and lean ("fitspiration") [8].

The concept of how a person should look in the eyes of society has always been around, in fact people have always been manipulated by what others thought represented elegance and attractiveness, beauty standards are part of our everyday life they have always appeared on TV and magazines. But now with the use of social media platforms is much easier to spread the pictures and images of "perfection" and teenagers are known to spend a lot of time scrolling down Instagram, Facebook, Twitter and even dating applications (apps) such as Tinder or Grindr. The use of this platforms has also become an addiction that furthers feeds their need to be perfect [1]. These social media apps are mostly centered in body image and how others perceive them what eventually leads to influence how one perceives them based on the number of compliments they get – likes, comments, number of shares and visualizations.

The amount of time adolescents spend on social media platforms it's already a cause for concern but with increasing number of ED arising from that use it's now, more important than ever, time to pay attention to potential triggers and to be aware of certain behaviors.

This concern grew largely with the pandemic COVID-19 and the lockdown that happened in most countries. COVID 19 besides being a physical health crisis it also represents a mental health crisis: with rising numbers of anxiety, depression, stress, disturbed sleep and ED [9]. When teenagers found themselves locked away, they found a way of being out: using social media, that led to a rising number of hours they spent looking at social media content, per day. The social media content also changed during this period focusing more and more on body image and even body positivity, but this content is often generated by model influencers that typically have a very specific body type – that

many can't achieve; and that use a lot of filters, such as facetune or bodytune, to correct their "imperfections" and thus creating an image that is impossible to copycat. Adolescents are now exposed to a glamorization of a specific body shape that is fomented by the fashion industry, fitness industry and that has become a business [10].

With this review we intend to see the correlation between use of social media, body dissatisfaction and eating disorders and create awareness in parents, physicians, psychologists, psychiatrists and teachers so they can develop strategies do correctly help and lead these adolescents by properly addressing the root of the problem. Social media manipulation in body dissatisfaction in adolescents as a cause of eating disorders.

DISCUSSION

Upon the reading of a total 12 articles addressing body dissatisfaction, ED and the relationship between those and the exposure to social media we concluded that there is indeed a strong connection between all of them.

The internalization of appearance ideals controls the relationship between exposure to media images on Instagram, Snapchat, Twitter, Facebook, dating apps and body perception, which commonly translates into dissatisfaction. The last publications concluded that the most dangerous social media was Instagram, followed by Facebook and Twitter, due to the instant satisfaction of having positive peer reviews [3]. Over the past decade the overall hours per day that early adolescents dedicated to social media had risen and the percentage of those who use social media daily had almost doubled, especially after COVID-19 and the lockdown [8,9]. There were many studies about the impact of the traditional media: television and magazines; in eating disorders and body dissatisfaction in teenagers, but now it's important to focus on the influence of social media and further explore the impact that it may have on the health of these adolescents.

Social media allows teenagers to interact with each other's through likes and commentaries they have on the posts they made (that are mostly image focused), these are the stimulus that drives them to improve their body image furthermore so they can continuously receive positive feedback that for a while helps them being comfortable about themselves. This exposure constantly pushes them to be what others like to see so they keep on trying to show themselves as perfect, the problem is: the ones they look up to usually look a certain way by using filters, apps of body enhancement (bodytune, facetune), posing and recurring to plastic surgery meaning that they don't even look like that so having that appearance is virtually impossible for one to get. These unrealistic beauty standards shown by celebrities, "instagramers", "insta models", youtubers, etc largely contribute for a never ending pursue of a body image that they can never achieve [8]. They engage into extreme diets, extreme workout routines that eventually lead to ED and other psychiatric issues such as: depression, anxiety and stress. This deep dissatisfaction they feel about their image happens for trying to mirror unrealistic images, 50% of boys and 74% girls have been found to want to modify something about their body by the age of 14 [8]. Girls aged 12-15 were found to be the least satisfied with

their body and also revealed more efforts to become thinner, especially through bulimic tendencies [7].

Adolescence is a crucial period in terms of building one's personality; it's a period that comes with a lot of insecurities, body changes, peer pressure and teasing and now social media pressure. All these challenges plus being exposed to "not so achievable role models" enhance their poor self-esteem that prospectively predicts negative physical and psychological health outcomes: depression, development of ED, engagement in risky body change behaviors – supplement use, excessive exercise, muscle gaining strategies and restrictive eating practices.

For a period, it was thought that body dissatisfaction was solemnly related to young girls when compared to boys, but new evidence suggests that is becoming an increasing issue in both genders. However, this displeasure with their body is different: girls typically focus on attempting to have a thin and slender appearance – developing an irrational fear of fat and certain foods (such as carbohydrates) as well as firm conviction that weight and shape are central determinants in their identity; whereas boys tend to try to be muscular and lean. Their paradox is to be "strong" and "skinny" [8,11].

Inside the boys' group there is also the sexual minority boys (homosexuals or bisexuals) that use a lot of dating apps such as: Grindr and Tinder plus other social media platforms. These sexual minority males had more tendency (in comparison with heterosexual boys) to have greater muscularity dissatisfaction, greater self-objectification and more frequent appearance-based comparisons [1]. The discovery of one's sexuality in teenage years is also a challenge, especially for those who don't seem to fit in the sexual orientation that most of their peers have. They recurrently use dating apps that are 100% centered in body image with a real time feedback that can either be positive or negative thus influence an already disturbing behavior. In a study lead in Australia with a sample of 2.733 sexual minority males shown that they, as the other boys' group, also aim to achieve overtly muscular bodies – lean (no fat) very muscular bodies [1]. However, they tend to be a little more rigorous with their workout routine and dieting due to be under social media pressure, dating pressure and peer pressure and teasing – about their looks and about their sexuality.

The teenagers in order to achieve the "perfect body" engage in maladaptive eating behaviors such as: restricting or bingeing and/or purging, often these behaviors do not necessarily fall into a ED by clinical criteria but they are considered a phase of a diagnosed ED, so it's demanding that an action is taken before it comes to an actual diagnostic with severe outcomes [3]. Vomiting is more prevalent during first adolescence years and restrictive dieting usually happens in the late years of adolescence. Patients with AN, BN and binge-eating disorder caused by a disturbed body image and followed by eating and weight loss unhealthy behaviors have more impairment in their life quality, forever being high-risk persons for developing a psychiatric pathology. There are also nonspecific eating behaviors, that don't meet the criteria for a ED but are also severe and in need for intervention: chronic dieting, fasting, binge eating, purging and abuse of laxatives and or diuretics [10].

EDs are largely associated with mood and anxiety problems, substance abuse and other impulse control disorders contributing for a poor quality of life [10].

CONCLUSION

In conclusion, the never-ending desire for approval so characteristic of adolescent years makes them a vulnerable group, exposed to various stimuli that may influence them for the rest of their life. Indeed, body dissatisfaction as a product of never-ending comparison and glamorization of specific body shapes encouraged by social media figures is a leading cause of EDs among those ages [10]. Adolescents spend an average of 7 plus hours/day interacting with media, which is more than any other activity they do except sleeping [12].

All the data we reviewed are in consensus with previous investigations and reviews concerning body dissatisfaction and low self-esteem and linking them to mental illness and the direct influence it has on developing EDs. The incongruity between what society presents as the "ideal body" and the real body that many young males and females have results in deep image and body anxiety that lead to maladaptive behaviors: restrictive eating, purging, excessive exercise [3].

Media models have a meaningful impact in the last beauty tendencies and dictate the trends that young people are following, so researchers have also noted how social media and influencers could address this body dissatisfaction issue and help teenagers, but some studies have showed that economic interests are related with the promotion of dieting in social media, exercise and even plastic surgery [3].

The ages between 12 and 15 years old are a crucial developmental period in which teenagers begin to build their personality, identity and are exposed to multiple emotions. During this particular period it's imperative to define one's self and reconcile the private self and the public self, a task that *per se* it's already hard to accomplish without a good support network: parents, teachers, physicians, friends [7]. This jointly with sociocultural pressure to have a certain body type can create too much stress and ambiguous emotions related to their body in a teenager's head.

That said it's very important that the adolescent support network is aware of certain behaviors that might indicate a bad relationship with food, excessive exercise, abuse of substances and complete dissatisfaction with their body. Once one of these problems is noted it's imperative that parents (and other family members), physicians, teachers, psychologists know to search for the original root of the problem: that being social media imagery that exposes impossible-to-achieve beauty standards. By knowing the source of the problem, the help, guidance and support they can provide can be much more accurate and precise.

REFERENCES

1. Griffiths S, Murray SB, Krug I, McLean SA. The Contribution of Social Media to Body Dissatisfaction, Eating Disorder Symptoms, and Anabolic Steroid Use among Sexual Minority Men. *Cyberpsychology Behav Soc Netw*. Março de. 2018; 21: 149-56.
2. Ata RN, Ludden AB, Lally MM. The Effects of Gender and Family,

- Friend, and Media Influences on Eating Behaviors and Body Image During Adolescence. *J Youth Adolesc.* 2006; 36: 1024–37.
3. Pilar Aparicio-Martinez, Alberto-Jesus Perea-Moreno, María Pilar Martinez-Jimenez, María Dolores Redel-Macías, Claudia Pagliari, Manuel Vaquero-Abellan. Social Media, Thin-Ideal, Body Dissatisfaction and Disordered Eating Attitudes: An Exploratory Analysis. *Int J Environ Res Public Health.* 2019; 16: 4177.
 4. Patel V, Flisher AJ, Hetrick S, McGorry P. Mental health of young people: a global public-health challenge. *The Lancet.* 2007; 369: 1302-13.
 5. Barcaccia B, Balestrini V, Salianni AM, Baiocco R, Mancini F, Schneider BH. Dysfunctional eating behaviors, anxiety, and depression in Italian boys and girls: the role of mass media. *Braz J Psychiatry.* 2018; 40: 72–7.
 6. Le Grange D, Swanson SA, Crow SJ, Merikangas KR. Eating disorder not otherwise specified presentation in the US population. *Int J Eat Disord.* 2012; 45: 711–8.
 7. Izydorczyk B, Sitnik-Warchulska K. Sociocultural Appearance Standards and Risk Factors for Eating Disorders in Adolescents and Women of Various Ages. *Front Psychol.* 2018; 9: 429.
 8. Vuong AT, Jarman HK, Doley JR, McLean SA. Social Media Use and Body Dissatisfaction in Adolescents: The Moderating Role of Thin- and Muscular-Ideal Internalisation. *Int J Environ Res Public Health.* 2021; 18: 13222.
 9. Vall-Roqué H, Andrés A, Saldaña C. The impact of COVID-19 lockdown on social network sites use, body image disturbances and self-esteem among adolescent and young women. *Prog Neuropsychopharmacol Biol Psychiatry.* 2021; 110: 110293.
 10. Barcaccia B, Balestrini V, Salianni AM, Baiocco R, Mancini F, Schneider BH. Dysfunctional eating behaviors, anxiety, and depression in Italian boys and girls: the role of mass media. *Rev Bras Psiquiatr.* 2017; 40: 72-7.
 11. Mellor D, McCabe M, Ricciardelli L, Yeow J, Daliza N, Hapidzal NF bt M. Sociocultural influences on body dissatisfaction and body change behaviors among Malaysian adolescents. *Body Image.* 2009; 6: 121–8.
 12. Strasburger VC, Jordan AB, Donnerstein E. Health Effects of Media on Children and Adolescents. *Pediatrics.* 2010; 125: 756-67.

Cite this article

Aranha-de-Macedo P, Ochoa FN, Cantieri FP, de Souza Rizzo DT, Palácio D (2022) Influence of Social Media on Body Dissatisfaction in Adolescents and Increasing Risk of Developing Eating Disorders: A Systematic Review. *JSM Physical Med Rehabil* 6(1): 1016.