

# Impact of Social Media on Eating Disorders in Adolescents and Emerging Therapies: A Review

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## ABSTRACT

The saying goes 'You are what you eat'. This is in reference to a healthy and balanced diet which gives a boost to one's mental and physical health. But in recent times, Eating Disorders (EDs) are seen to increase among adolescents. These result from several factors, including prevalence of unhealthy dieting behaviours and unrealistic beauty images. Advertising has popularised a thin body ideal. Social media is influencing the young minds in their food choices. Constant use of pictures, advertisements, videos by celebrities and other social media influencers have caused an increase in body dissatisfaction especially among adolescents. The ideal body portrayed by media for women is a very thin body, perfect in shape, and for men it is a muscular and tall body image. The adolescent brain has increased levels of 'neuroplasticity' and hence is malleable that is it is highly responsive to being shaped and re-wired by the environment- which also includes diet and body images. Hence, the need of the hour is to set in place healthy dietary habits and exercise routine along with will power for lifelong healthy living.

**Keywords:** Body dissatisfaction, Dietary habits, Neuroplasticity

## INTRODUCTION

The EDs are a category of conditions characterised by severe abnormalities in eating behaviour and body weight with disturbances in thoughts and emotions [1]. In the DSM-5 classification, EDs are characterised as anorexia nervosa, bulimia nervosa and binge ED, also referred to as the three typical EDs [1]. Atypical forms of these disorders are named as 'Other Specified Feeding or Eating Disorders' (OSFEDs). People with anorexia nervosa refrain themselves from eating and forgo foods, severely restrict food intake, or consume very little of certain selected foods. Compared to other mental diseases, it has a very high death (mortality) rate. Anorexics run the risk of death from starvation-related medical problems. People with bulimia nervosa have recurring and frequent episodes of eating excessive amounts of food while also feeling unable to control these episodes. Following a binge eating episode, people may engage in compensatory behaviours such as fasting, excessive laxative or diuretic use, forced vomiting, excessive exercise, or a combination of these [1]. A person with a binge-ED loses control over their eating and experience recurrent episodes of eating excessive amounts of food. A condition where people restrict the quantity or kind of food they eat is called Avoidant Restricted Food Intake Disorder (ARFID), formerly known as selective ED. People with ARFID do not have an acute fear of gaining weight or a distorted body image, in contrast to those with anorexia nervosa. ARFID typically manifests earlier than other EDs in middle childhood, where it is most prevalent [2].

ED is one of the most intense of all mental disorders as they are related to vast psychiatric and medical co-morbidity, high mortality [2]. It not only affects the quality of life of the patients and their near ones but also puts a financial burden on the individual, their family and society as a whole [3]. EDs also have profound and specific effects on psychosocial functioning. Moving away from the early assumption that EDs exclusively affected affluent, white, young ladies, it is now known that males and females [4], of various ages [5], and ethnicities [6] experience disordered eating and body image dissatisfaction. Studies also show that EDs and abnormal eating behaviours are equally prevalent in non western countries and among ethnic minorities [7] as well as seen in both developed and developing countries [8]. EDs are becoming more common in non western nations as a result of globalisation and cultural change,

including modernisation, urbanisation, and media exposure that promotes the western beauty ideal [9]. Up to 70 million people worldwide suffer from an ED, including 5.5 million Americans about 3 million Britons, and more than 900,000 Australians [10].

## IMPACT OF SOCIAL MEDIA

Social media is one of the most popular forms of communication now-a-days. Since, it has become a necessary component of daily life, it is but natural that this media would also influence health decisions. Teenagers are increasingly turning to digital and social media instead of traditional media, like television and periodicals, according to a 2016 World Health Organisation (WHO) report [11]. They heedlessly adopt the fashion, styles, and product preferences, including eating choices, shown on the social media [12]. Teenagers are extremely sensitive to peer behaviour likes, according to the theory of social norms, and this is what the social media relies on [13]. Some young people view social media as a very reliable source [14]. People view suggestions made by peer groups on social media as a sign of the veracity of information because of the constant interconnection of users of these platforms [15].

The prevalence of social networking sites like Facebook and Instagram has further boosted people's exposure to ideals of being trim and fit [16]. According to a study by Field AE et al., boys and girls (ages 9 to 14) who made an effort to resemble celebrities in the media were more likely than their classmates to experience weight issues and start dieting often [17]. One recent study of young individuals aged 19 to 32 found a substantial linear association between the amount of social media use and problematic eating patterns [18]. Self objectification and an irrational desire for thinness have been connected to using social media for thirty minutes a day [19]. The majority of models who appear in popular media have bodies that are substantially thinner than average and advertisements in India now frequently feature athletic guys [20].

According to Moreno, there is a strong correlation between media exposure and the prevalence of eating problems among adolescents [21]. The primary causes of EDs among adolescents were psychological in nature, with a high incidence of the underlying cause-dissatisfaction with one's body image [22]. According to a study by Wyssen A et al., social media's emphasis on beauty ideals

encourages disordered eating [23]. It causes females to become dissatisfied with their bodies and desire for being thin [24]. The social pressure to be thin that comes from the media is certainly more on women than men [21]. Furthermore, the objectification theory contends that the sexual objectification of women in the media alters their physical appearance. This leads one to the conclusion that self-perception gradually shapes attractiveness and causes changes in body image, body dissatisfaction, and disordered eating habits [25].

### Psychological Therapies for EDs

Due to clinical co-morbidity, EDs significantly affect both the patient and their family. The most common form of therapy for teenagers with anorexia nervosa is Family-Based Treatment (FBT) [26]. Families usually need professional help and advice in relation to their own emotional reactions, and parents typically struggle to address both their own needs as well as those of other family members [27]. Family-based therapy is an effective first-line mental health treatment that is led by a mental health therapist [28]. Siblings in families with EDs claim that the illness takes up a lot of time and space, hence often complain about inadequate care and unfavourable changes in family dynamics [29]. It is needed that family-based therapy should be supported with traditional medical care. Results demonstrating this approach's efficacy for adolescents in the short-term indicate that 80-90% of patients had good to exceptional progress and treatment effects sustained over a longer period of time [30].

Multifamily Therapy (MFT) is recommended as a promising group model for young people due to its potential to strengthen familial ties [31]. Adolescents with anorexia nervosa may benefit from Cognitive Behavioural Therapy (CBT), according to research [32]. People with AN have disordered thoughts about their appearance, weight, and overestimation of thinness. Thus, it is necessary to address the behaviours of excessive exercising and dieting as well as cognitive restructuring. In addition to CBT, reviews also support other forms of therapies like Specialised Clinical Supportive Management (SSCM) [33], psychodynamic therapy [34] interpersonal therapy [34], behaviour therapy [34], and systematic and strategic therapies [35] among others.

All of these psychological interventions are useful but that there is inadequate data to determine which ones are the most successful. According to the authors, DBT is another approach which aims to treat EDs by addressing behavioural symptoms such as calorie restriction, excessive exercise routine, laxative usage, food restriction, body checking, purging, binge eating, and diet pill use [36]. Diamond-Raab and Orrell-Valente (2002) have advocated the use of an integrated group model that incorporates both drama therapy and art therapy; however, no studies have been done to determine the efficacy of this model [37]. Healthcare practitioners, parents, educators, school administrators, and other professionals should be aware of the kind of programmes that young people are exposed to, their contents, and the health concerns related to media exposure [38]. Many diverse solutions, including health communication campaigns, entertainment education, media advocacy, and media literacy training, should be taken into consideration by those worried about the media's detrimental effects on body image, self-esteem, food, dieting, and EDs [39].

### CONCLUSION(S)

This review adds to the knowledge that psychological factors are one of the main risk factors directly related to EDs in adolescents. Body image dissatisfaction is a common factor. Adolescent mental health promotion programs can be created keeping in mind the relevance of this factor and influence of social media. Prevention and early detection of EDs in adolescents should be prioritised. Social media can be used by health experts to encourage adolescents to eat healthy foods. Instead of promoting skinny bodies, promote

healthy bodies. Increasing food literacy on social media might be a significant strategy for altering eating habits. Adolescents can greatly benefit from media literacy, which is the understanding and use of mass media, since it can help them evaluate programs and advertisement contents more critically. Even parents need to receive education and training to enable them to critically assess media material. Parents can be effective media advocates for the promotion of health and healthy behaviours.

### REFERENCES

- [1] Schmidt U, Adan R, Böhm I, Campbell IC, Dingemans A, Ehrlich S, et al. Eating disorders: The big issue. *Lancet Psychiatry*. 2016;3(4):313-15. Doi: 10.1016/S2215-0366(16)00081-X. PMID: 27063378.
- [2] van Hoeken D, Hoek HW. Review of the burden of eating disorders: Mortality, disability, costs, quality of life, and family burden. *Curr Opin Psychiatry*. 2020;33(6):521-27. Doi: 10.1097/yco.0000000000000641.
- [3] Agh T, Kovacs G, Supina D, Pawaskar M, Herman BK, Voko Z, et al. A systematic review of the health-related quality of life and economic burdens of anorexia nervosa, bulimia nervosa, and binge eating disorder. *Eat. Weight Disord*. 2016;21(3):353-64. Doi: 10.1007/s40519-016-0264-x.
- [4] Striegel-Moore RH, Rosselli F, Perrin N, DeBar L, Wilson GT, May A, et al. Gender difference in the prevalence of eating disorder symptoms. *Int J Eat Disord*. 2009;42(5):471-74. Doi: 10.1002/eat.20625. PMID: 19107833; PMCID: PMC2696560.
- [5] Hay PJ, Mond J, Buttner P, Darby A. Eating disorder behaviours are increasing: Findings from two sequential community surveys in South Australia. *PLoS One*. 2008;3(2):e1541. Doi: 10.1371/journal.pone.0001541. PMID: 18253489; PMCID: PMC2212110.
- [6] Hay PJ, Carriage C. Eating disorder features in indigenous Aboriginal and Torres Strait Islander Australian peoples. *BMC Public Health*. 2012;12:233. Doi: 10.1186/1471-2458-12-233. PMID: 22439684; PMCID: PMC3342121.
- [7] Marques L, Alegria M, Becker A, Chen C, Fang A, Chosak A, et al. Comparative prevalence, correlates of impairment, and service utilization for eating disorders across US ethnic groups: Implications for reducing ethnic disparities in healthcare access for eating disorders. *Int J Eat Disord*. 2011;44(5):412-20. Doi: 10.1002/eat.20787.
- [8] Mashhadi A, Noordenbos G. Dieting and the development of eating disorders among Iranian women: Comparing the risk between Tehran and The Netherlands. *Food Cult Soc*. 2012;15(1):43-60.
- [9] Becker AE, Fay KE, Agnew-Blais J, Khan AN, Striegel-Moore RH, Gilman SE. Social network media exposure and adolescent eating pathology in Fiji. *Br J Psychiatry*. 2011;198(1):43-50. Doi: 10.1192/bjp.bp.110.078675.
- [10] Streatfeild J, Hickson J, Austin SB, Hutcheson R, Kandel JS, Lampert JG, et al. Social and economic cost of eating disorders in the United States: Evidence to inform policy action. *Int J Eat Disord*. 2021;54(5):851-68. Doi: 10.1002/eat.23486.
- [11] World Health Organization (2016) Tackling Food Marketing to Children in a Digital World: Trans-Disciplinary Perspectives. Children's Rights, Evidence of Impact, Methodological Challenges, Regulatory Options and Policy Implications for the WHO European Region. Copenhagen, Denmark: World Health Organization.
- [12] Hawkins L, Farrow C, Thomas J, Thomas J. Do perceived norms of social media users' eating habits and preferences predict our own food consumption and BMI? *Appetite*. 2020;149:104611. Doi: 10.1016/j.appet.2020.104611.
- [13] Westerman D, Spence P, Heide B. Social media as information source: Recency of updates and credibility of information. *J Comput Mediat Commun*. 2014;19(2):171-83. Doi: 10.1111/jcc4.12041.
- [14] Dickey IJ, Lewis WF. "The Evolution (Revolution) of Social Media and Social Networking as a Necessary Topic in the Marketing Curriculum: A Case for Integrating Social Media into Marketing Classes" *Advances in marketing: Embracing challenges and change- A global perspective* (2010). Available at: [http://works.bepress.com/irene\\_dickey/4/](http://works.bepress.com/irene_dickey/4/).
- [15] Becker AE, Gilman SE, Burwell RA. "Changes in prevalence of overweight and in body image among Fijian women between 1989 and 1998". *Obes Res Jan*. 2005;13(1):110-17. Doi: 10.1038/oby.2005.14. PMID: 15761169.
- [16] Cohen R, Newton-John T, Slater A. 'Selfie'-objectification: The role of selfies in self-objectification and disordered eating in young women. *Comput Hum Behav*. 2018;79:68-74.
- [17] Field AE, Camargo CAJ, Taylor CB, Berkey CS, Roberts SB, Colditz GA. Peer, parent, and media influences on the development of weight concerns and frequent dieting among preadolescent and adolescent girls and boys. *Pediatrics*. 2001;107:54-60.
- [18] Das M. Men and women in Indian magazine advertisements: A preliminary report. *Sex Roles*. 2000;43:699-717. <https://doi.org/10.1023/A:1007108725661>.
- [19] Sidani JE, Shensa A, Hoffman B, Hanmer J, Primack BA. The association between social media use and eating concerns among US young adults. *J Acad Nutr Diet*. 2016;116(9):1465-72. Doi: 10.1016/j.jand.2016.03.021.
- [20] Fardouly J, Willburger BK, Vartanian LR. Instagram use and young women's body image concerns and self-objectification: Testing mediational pathways. *New Media & Society*. 2017;20(4):1380-95. Doi: 10.1177/1461444817694499.
- [21] Moreno J, Torres C. Systematic review of the sociocultural determinants associated with eating disorders in Latin American adolescents between 2004 and 2014. Bogotá: UCA publication; University Applied and Environmental Sciences. 2015.

- [22] Shahyad S, Pakdaman S, Shokri O, Saadat SH. The role of individual and social variables in predicting body dissatisfaction and eating disorder symptoms among Iranian adolescent girls: An expanding of the tripartite influence mode. *Eur J Transl Myol*. 2018;28(1):7277. Doi: 10.4081/ejtm.2018.7277. PMID: 29686817; PMCID: PMC5895986.
- [23] Wyssen A, Coelho JS, Wilhelm P, Zimmermann G, Munsch S. Thought-shape fusion in young healthy females appears after vivid imagination of thin ideals. *J Behav Ther Exp Psychiatry*. 2016;52:75-82.
- [24] Roy N, Nidhi C, Vishnu R. Body image dissatisfaction in young adults: Impact of social media use. *Int J Educ Psychol Res*. 2021;2021:e-ISSN:2279-0179.
- [25] Aparicio-Martinez P, Perea-Moreno AJ, Martinez-Jimenez MP, Redel-Macias MD, Pagliari C, Vaquero-Abellan M. Social media, thin-ideal, body dissatisfaction and disordered eating attitudes: An exploratory analysis. *Int J Environ Res Public Health*. 2019;16(21):4177. Doi: 10.3390/ijerph16214177. PMID: 31671857; PMCID: PMC6861923.
- [26] Hornberger LL, Lane MA; Committee on Adolescence. Identification and management of eating disorders in children and adolescents. *Pediatrics*. 2021;147(1):e2020040279. Doi: 10.1542/peds.2020-040279.
- [27] Fox JR, Dean M, Whittlesea A. The experience of caring for or living with an individual with an eating disorder: A meta-synthesis of qualitative studies. *Clin Psychol Psychother*. 2017;24(1):103-25. Doi: 10.1002/cpp.1984.
- [28] Rienecke RD. Family-based treatment of eating disorders in adolescents: Current insights. *Adolesc Health Med Ther*. 2017;8:69-79. Doi: 10.2147/AHMT.S115775.
- [29] Varnell CJ. How do informal caregivers of individuals with eating disorders rate their quality of life? A systematic review of the literature [dissertation]. Edinburgh: University of Edinburgh; 2014. Available from: <https://era.ed.ac.uk/handle/1842/14222>.
- [30] Eisler I, Simic M, Russell G, Dare C. A randomized controlled treatment trial of two forms of family therapy in adolescent anorexia nervosa: A five-year follow-up. *J Child Psychol Psychiatry*. 2007;48:55-60.
- [31] Cooper Z, Stewart A. CBT-E and the younger patient. In: Faiburn C, editor. *Cognitive behavioural therapy and eating disorders*. New York: Guilford; 2008; pp. 221-30.
- [32] Lock J, Fitzpatrick KK. Advances in psychotherapy for children and adolescents with eating disorders. *Am J Psychother*. 2009;63(4):287-303. Doi: 10.1176/appi.psychotherapy.2009.63.4.287. PMID: 20131739.
- [33] Yager J, Andersen A, Devlin M, Egger H, Herzog D, Mitchell J, et al. Practice guideline for the treatment of patients with eating disorders, second edition. In N. C. Numerous Contributors (Ed.), *American Psychiatric Association practice guidelines for the treatment of psychiatric disorders: Compendium 2002*; 697-766. American Psychiatric Association.
- [34] Resmark G, Herpertz S, Herpertz-Dahlmann B, Zeeck A. Treatment of anorexia nervosa-new evidence-based guidelines. *J Clin Med*. 2019;8(2):153. Doi: 10.3390/jcm8020153. PMID: 30700054; PMCID: PMC6406277.
- [35] Ministry of Health Clinical Practice Guidelines for the BC Eating Disorders Continuum of Services. [(accessed on 1 October 2018)]; Available online: <http://mh.providencehealthcare.org/sites/default/files/BC%20Eating%20Disorders%20Clinical%20Practice%20Guidelines.pdf>.
- [36] Salbach H, Klinkowski N, Pfeiffer E, Lehmkuhl U, Korte A. Dialektisch-behaviourale Therapie für jugendliche Patientinnen mit Anorexia und Bulimia nervosa (DBT-AN/BN)-eine Pilotstudie [Dialectical behaviour therapy for adolescents with anorexia and bulimia nervosa (DBT-AN/ BN)--a pilot study]. *Prax Kinderpsychol Kinderpsychiatr*. 2007;56(2):91-108. German. Doi: 10.13109/prkk.2007.56.2.91. PMID: 17410928.
- [37] Diamond-Raab L, Orrell-Valente JK. Art therapy, psychodrama, and verbal therapy. An integrative model of group therapy in the treatment of adolescents with anorexia nervosa and bulimia nervosa. *Child Adolesc Psychiatr Clin N Am*. 2002;11(2):343-64. Doi: 10.1016/s1056-4993(01)00008-6. PMID: 12109325.
- [38] Rome ES, Strandjord SE. Eating disorders. *Pediatr Rev*. 2016;37(8):323-36. Doi: 10.1542/pir.2015-0180. PMID: 27482062.
- [39] National Collaborating Centre for Mental Health (UK). *Eating Disorders: Core Interventions in the Treatment and Management of Anorexia Nervosa, Bulimia Nervosa and Related Eating Disorders*. Leicester (UK): British Psychological Society (UK); 2004. PMID: 23346610.

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