

Adolescent and young adult prone to developing an eating disorder during COVID-19 lockdown?

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ABSTRACT

The COVID-19 pandemic has made many nations to declare national wide lockdown. India, with the youngest populated country, has to declare a national wide lockdown to prevent the transmission. By imposing a national wide lockdown, many sections of societies are being a victim of mental illness and are affected psychologically and socially. Particularly, adolescents and young adult groups, are exposed to unregulated lifestyle and eating habits due to the closure of schools, colleges, and offices. The aim and purpose of this study is to find that the COVID-19 lockdown will result in developing eating disorders in present as well as in the future among adolescents and young adults. The size of the sample is 54 (30 female and 24 male) aged 13-30, who are considered adolescent and young adults. SCOFF questionnaire by John F Morgan was used as a screening instrument to find the chance of having an eating disorder. The result shows that 20 (11 female and 9 male) out of 54 were likely to have an eating disorder. Additionally, the consumption of food quantity regarding pre and present COVID-19 lockdown have also changed. Further by referring to literature, factors such as social media, psychological distress, family, and perception on a healthy diet also have an important role to play in developing an eating disorder during COVID-19 lockdown. The study concludes that COVID-19 being a life-changing event for many, have a chance of developing an eating disorder in the future and changing the perception of health and diet, which may threaten developing Orthorexia Nervosa. During this lockdown, it appears that there is a higher chance of developing an eating disorder such as Bulimia Nervosa and Binge-eating disorder.

Keywords: COVID-19 lockdown, Adolescents and Young Adults, Developing, Eating Disorder

Coronavirus disease 2019 (COVID-19) is a disease caused by SARS-CoV-2, which causes respiratory tract infections. SARS-CoV-2 belongs to the family of Coronavirus, including Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The unknown pneumonia outbreak took place in Hubei Province's capital Wuhan, China on 31 December 2019 and instantly spread to other nations in January 2020 [1]. In the same month World Health Organisation (WHO) declared a Public Health Emergency of International Concern (PHEIC) regarding the novel

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Coronavirus and on 11 March 2020, the Organisation declared COVID-19 as a global pandemic. The COVID-19 pandemic is having an imminent effect on the nation's industry and government, which is causing a threat to economic crisis and recession. Many small and medium enterprises are at risk of shutting down due to a reduction in sales, loss, and thus terminating employees [2]. National wide lockdown and mass quarantine have resulted in the psychological impact which varies from an immediate effect like fear of contracting the virus, hysteria, frustration, loneliness, anxiety, including suicide [3]. India is one of the world's youngest populated countries with more than 54% of the total population is below 25 years of age and accordingly, the impact on Adolescent and young adult's mental health is crucial during this lockdown. Because, many students missed their exams, internships, and classes. The most affected are higher and higher secondary school students and final year college students who were ready to get placement. This results in students and young employees who are working from home to an unregulated and challenging lifestyle. The lockdown has impacted the daily routines and habits of people, such as a change in pattern and quality of sleep, social interaction, eating habits, and internet usage [4].

Young adults who are fitness and health enthusiasts are worried due to the lockdown which caused the closure of gyms and other fitness centres. And this had forced people to maintain their body and health at home without a proper instructor. Adolescents and young adults are mainly affected by unregulated eating because staying at home can cause a modified appetite, either positive or negative [5]. Little is known about Eating disorders and their effect on the behaviour of an individual. Eating disorders are mental illness, which is characterized by a continuous disturbance of eating or eating-related behaviour that results in the altered consumption of food and significantly affecting the both physical health and psychosocial well-being. Here, eating-related behaviour refers to an individual food choice, motives, and dieting. Eating behaviour is influenced and developed by parenting, social influence, and the environment. The DSM-5 (Diagnostic and Statistical Manual of Mental Disorders) mainly recognizes 6 Feeding and Eating Disorders. It is important to discuss eating disorders such as Anorexia Nervosa, Bulimia Nervosa, and Binge-Eating Disorder (BED) concerning COVID-19's lockdown [6].

Anorexia nervosa (AN) is characterized by severe low weight in the context of age, sex, and physical health, which is caused by restriction of energy(food) intake relatively what is required. Restriction of food can be caused by persistent behaviour that leads to an Intense fear of gaining weight or becoming fat. Additionally, AN can also be developed from the disturbance of one's perception in a way in which weight or shape is experienced. Bulimia Nervosa (BN) is characterized by a cycle of binge eating, which means consuming food that is a larger quantity than the most individual would consume in a similar period under similar circumstances. BN leads to a sense of lack of control over eating and feel that one can't stop or control what or how much he/she eating. A person with BN shows compensatory behaviour to prevent gaining weight through excessive exercise or by taking medications. Binge-Eating Disorder is similar to that of Bulimia Nervosa, but the disorder doesn't show any symptoms of a compensatory behaviour to lose weight. A person with BED eats more rapidly and also eats when not hungry, eats until he/she is uncomfortable full, and feel embarrassed and guilt of consuming more food. The most important eating disorder to discuss at this COVID-19 situation is Orthorexia Nervosa (ON) and is classified under Unspecified feeding and eating disorders of DSM-5. ON is a type of eating disorder in which a person is obsessed with healthy eating and it is based on certain beliefs and exaggerates faith in food. People with ON avoid certain kinds of food because by avoiding it, they believe that it can prevent or cure disease. They only focus on the quality of the food

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which are super healthy for them and have an attitude of perfectionism, Hyperorality, rigid thinking, and follows perceived rules on restrictive behaviour [7].

Objectives of the study

1. To find how many male and female aged 13-30 likely to have an eating disorder in this COVID-19 lockdown
2. To find out the change in consumption of food intake by adolescent, young adult male and female during COVID-19 lockdown
3. To find the role played by social media, psychological distress, family, and perception on a healthy diet in causing eating disorders during COVID-19 lockdown.

Hypotheses

The COVID-19 lockdown will result in developing eating disorders both at present as well as post- COVID-19 among adolescents and young adults.

REVIEW OF LITERATURE

A research article on the International Journal of Eating Disorder titled ‘The Impact of the COVID-19 pandemic on eating disorder risk and symptoms’ initiates to study eating disorder and COVID-19 from a different perspective. The authors have put a spotlight on Eating Disorder Risk, symptoms based on risk factors, and limited access to care at this particular situation. More importantly, Disruption and restrictions to daily activities have resulted in a change of pattern of eating, Physical activities, and sleep was discussed with real-time examples. In the context of mental care, the prevailing situation has caused inaccessible to any means of social support or therapist. Indeed, the researchers covered Media, which including social media also have a substantial impact on an individual’s behaviour and perception because of work from home, online posts, video-conferencing, constantly looking at the mirror, and worrying. Anxiety and depression are considered important risk factors for ED, but now the fear of contagion of COVID-19 also leads to the synergism of these two factors. The conclusion states that this particular topic needs to be evaluated and assessed in different cultural and social populations. The Existing literature considers the whole population and vulnerable group, but a further systematic study is required on that vulnerable group which are Adolescents and young adults. Not many studies are done on them with COVID-19 and ED.

METHODOLOGY

Sample

A stratified sample was used to collect the data for the research. A total of 54 participants across India aged 13-30, considered as adolescents and young adults participated in the survey and answered the questions. The questionnaires were distributed through social media, such as Facebook and LinkedIn, and asked participants to answer via Google form. The purpose and aim of the study were informed to the participants and consents were obtained before collecting the sample.

Instruments

Two measures were used in this study,

SCOFF for Eating Disorder: The data was obtained using the SCOFF (Sick, Control, One, Fat, Food) questionnaire, which is used screen eating disorder developed by John F Morgan. SCOFF Questionnaire consists of five simple questions, such as ‘Do you ever make yourself sick because you feel uncomfortably full?’, ‘Are you worried that you have lost control over how much you eat?’, ‘Have you recently lost more than one stone in three months?’, ‘Do

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you believe yourself to be fat even when others say that you are too thin?', 'Do you agree that food dominates your life?'. Respondents were asked to answer either "Yes" or "No". Though these questions are not diagnostic, the score raises suspicion of an eating disorder and highlights the need for a more detailed study.

Individual Information: Additionally, data such as gender, level of consuming food in terms of less, more, or no change were also asked concerning before and after COVID-19 lockdown

Scoring

Answering "Yes" for two or more questions indicates a possible case of eating disorders such as anorexia nervosa, bulimia nervosa, Binge-Eating Disorder, and other eating disorders.

RESULTS

Table No. 1 Shows the relation between gender and Likely to have an eating disorder.

Gender	Likely to have Eating Disorder
Female (n=30)	11
Male (n=24)	9
Total (n=54)	20

From Table No. 1, it appears that 9 out of 24 males and 11 out of 30 females likely to have an eating disorder. DSM-5's Diagnostic Criteria for Bulimia Nervosa says that binge eating with inappropriate compensator behaviour on average at least once a week for 3 months. Similarly, Diagnostic Criteria for Binge-eating Disorder lay down a specific period of an episode of binge-eating i.e., on average, at least once a week for 3 months. Officially, on 25th March 2020, the government of India declared a national wide lockdown, and further, some state upheld the lockdown in contaminated zones and states. Ministry of Home Affairs in a guideline for phased Re-opening (Unlock 3) stated that all schools, colleges, and educational institutions will be remained closed till 31st August 2020. Yoga and gymnasiums will be reopened only from 5th August 2020 [8]. So, this period of lockdown, which is more than 4 months, had a considerable impact on adolescent and young adult's eating-related activity and behaviour. There are no time particular period/episodes to determine symptoms of Anorexia Nervosa like BN or BED in DSM-5, but it opens up new avenue regarding both present and posts COVID-19 lockdown.

Nearly, 29.1% of male and 36.6% of female claimed that they are consuming less quantity of food compared to pre and present lockdown. Whereas 45.8% of males and 40% of females are consuming more food quantity, and 25% of males and 23.3% of female contended that there is no change in the consumption of food. So, adolescent and young adult male groups are consuming more quantity of the food as compared to the female group in this lockdown, which may indicate an episode of binge-eating among males. Lower food intake to prevent the gaining of weight and lack of interest in food may be some of the reasons for Consuming less quantity of food among females. In a study, it was observed that disturbance in eating behaviour was a defining characteristic of the clinical eating disorders Anorexia Nervosa, Bulimia Nervosa, and Binge-eating Disorder. However, this significance on eating behaviour in AN does not imply solely in behavioural terms. It includes a range of biological, psychological, and environmental influences. Studies on AN show that the

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persistence of characteristic irregularity in eating behaviour sets the stage for eating disorder [9].

DISCUSSION

Factors influencing eating-related behaviour and eating disorder during lockdown

Social media: social media has an important role to play in eating-related behaviour and acts as a trigger for an eating disorder, it changes the perception of any individual's body-image, weight concern, and diet. Due to the COVID-19 lockdown, people are spending more time on the online platform and social media, to keep themselves entertained and relaxed. The use of social media is normal social behaviour, it may be beneficial but on the other hand, it may also become harmful by provoking anxiety. Social media influence the perception of an individual regarding health, food, and physical well-being. Food and health are now considered an important subject in this COVID-19 situation. Social media users post a variety of content related to diet, exercise, immunity-based food to eat, and much more advice related to health [10]. Adolescents and young adults are vulnerable to the post which glorifies and promote a particular body size and image. So, in this particular period, social media have a huge role in changing the perception of healthy food, body size, and image [11]. Further, the appetized and tempting food pictures/videos on social media leads to both external eating and food cravings [12].

Psychological Distress: Psychological distress has a strong association with eating disorders such as Perceived stress, depression, anxiety, and negative life events. Self-esteem refers to an individual's perception of one's self-worth, feeling of self-respect, and self-confidence, it is linked with response to success and failure [13]. The lockdown has greatly affected adolescents by closing schools, colleges, and restricted other means of extra-curricular activities and competition. There is an impact on Mental well-being and academics Due to lack of social interaction, social support, study collaboration, and friendship which may lower self-esteem and cause anxiety [14]. Social comparison in this lockdown is also one of the main reasons for Low Self-esteem. Young adults, especially Final year college students in the young adult's group are mainly affected due to insufficient opportunities to get a placement in this situation and working adults feel anxious, depressed mainly due to financial loss, fear of unemployment, frustration [15]. Anxiety and stress were more common among young adults and depression was common among adolescents and adults mainly because of the loss of loved ones, family members, and friends due to COVID-19 [16]. low-self-esteem, anxiety, depression, and self-directedness (a personality trait, to regulate and adapt behaviour according to the situation to achieve a goal) are factors in developing an eating disorder [17].

Family: Family relationships and functions are at great pressure under lockdown and quarantine. Transitional events such as school transition, death of a family member, home and job transition, illness, or hospitalization in the family life cycle, and lack of support may cause an eating disorder [18]. Closure of schools and college have restricted students to socialize to some degree and are only left with their parents and siblings to communicate and spend time. But some Adolescents' parents who are forced to work from home have no time to spend time with them. Adults on the other hand have many more responsibilities in taking care of their old parents and children. family relationships are Not only affected in the time of COVID-19 but also have a long-term implication on mental and physical health consequences/permanent damage [19]. Parenting is an important aspect in this situation, where WHO, UNICEF, and NGOs are working separately on parenting advice and tips to maintain good relationships with children. However, During the period of closure of school

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children are exposed to violence, child abuse, and parenting stress [20]. “Overprotective/high-concern” parenting behaviour was more common among parents of AN patients and the relationship of eating disorder and family requires close attention to parents’ competence, motivation, and history of traumatizing events [21].

Perception of a healthy diet: The COVID-19 has made people think and explore healthy/risky food, which is their perception and attitude towards health and risky food. The impact of the COVID-19 pandemic resulted in a change in perception positively on organic food and negatively towards game meat. There also appeared that food anxiety and health scare caused by COVID-19 changed the belief about food, but the older generation’s future diet was smaller/stable [22]. The perception of weight gaining among people in this lockdown and an increase in physical activity was observed. People aged 18-30 started to follow the Mediterranean diet and turned to organic fruits and vegetables [23]. Although Mediterranean diet/clean eating is popular, social media may be one of the influencers, but this dietary strategy which people think can be beneficiary poses a risk of eating disorder known as Orthorexia Nervosa (ON). The term “Clean eating” emphasizes the consumption of pure and healthy food, it implies the restrictive eating pattern and strict avoidance of unhealthy food. Clean diets, meal substitution diet is linked with indicators of eating disorders [24]. A Perception of a healthy diet also influences its family members, thus pose a threat of developing ON disorder in the future.

CONCLUSION

The findings and literature of the study show that there is a relationship between COVID-19 and the development of eating disorders among adolescents and young adults, who are a vulnerable group. There is a strong role played by factors such as social media, psychological distress, family, and perception of a healthy diet in posing a risk of developing an eating disorder. There also appears that there is a change in the consumption of food level These behaviours in the time of COVID-19 have been suggested as possible risk factors for the development of eating disorders. A life-changing event can cause an eating disorder, thus COVID-19 being a life-changing event itself for many sections of society, especially for higher secondary and freshly graduate students. In this situation of lockdown, it is the responsibility of physicians, psychotherapists, and dieticians to educate and communicate about eating-related behaviour and disorder. The adolescent and young adult, especially the male group may be a victim of Binge-eating disorder and Bulimia Nervosa, considering both consumptions of food and an increase in physical activity. In post COVID-19 there is a chance of developing Orthorexia Nervosa, as the perception of food and health had been affected by the COVID-19 pandemic. Thus, the hypothesis has been proved with existing literature and findings.

Limitation and recommendation

One limiting factor that may have affected the results was the small, convenience sample size of participants, which did not allow for a full representation of the adolescent aged group. Eating disorder concerning COVID-19 have a wide range of scope and these insights open to future research and development in a comparative study on demographical data and aftermath of COVID-19. Existing literature on eating disorder is constrained only on AN, BN, and BED eating disorders, there is scarcely any study on Orthorexia Nervosa with Indian ethnicity.

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Conflict of Interest

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