

# A case of anorexia nervosa whose body image deteriorated after being weighed with classmates at school

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## ABSTRACT

Anorexia nervosa is an eating disorder characterized by a heightened desire to have a lean body structure that leads to an extreme fear of becoming fat. The patients with this disorder have a severely impaired perception of their bodies. Negative behaviors and attitudes in peer communication may hugely impact the affected individual at every stage of this disorder. The level of peer communication quality could be shaped by the conditions prevalent in the school, particularly the approaches undertaken by the educators and the staff at school. However, it would be incorrect to state that wrong communication styles adopted by the friends of an individual or unsuitable conditions in the school environment alone would be sufficient for the development of anorexia nervosa in adolescents. A 16-year-old girl with anorexia nervosa was followed up for 1.5 years after the diagnosis of the disorder, a period during which she had begun exhibiting improvement in her condition. However, her symptoms reappeared after she underwent height and weight measurements at school during the physical education and sports class to determine her physical health. This case is presented (1) to remind that anthropometric measurements are personal data and (2) to emphasize that it would be appropriate to provide privacy in this respect at schools.

**Keywords:** Anorexia nervosa, eating disorders, adolescents, weigh at school

Adolescence is a period of human life that is characterized by rapid changes in the physical structure. These changes lead to the adolescents being highly focused on their bodies, with their weight, height, and general body ratio becoming important factors impacting their personal sense of competence. The changes occurring in their body structure alter their self-perceived body image and raise concerns regarding their appearance [1]. It is, therefore, necessary for adolescents to adapt to these rapid and intense physical body changes and regulations. However, such

adaptation is highly sensitive, with any external factor capable of disrupting the harmony achieved and thereby causing eating disorders [2]. Moreover, the development of body perception is influenced by several factors other than physical development. Problems with one or more of these factors during the development of body image in the minds of adolescents leads to a sense of dissatisfaction with the body, which may culminate into eating disorders [3].

The difference between one's perceived image of the body and the body shape one wishes to have, or a

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negative presentation of this difference by different environmental factors may lead to eating disorders in the adolescent age group, which is already sensitive to the physical changes occurring in their bodies as body image problems are common in this age group [4-6].

In the present report, a case of a 16-year-old girl with anorexia nervosa is discussed. The girl was followed up for 1.5 years after the diagnosis of the disorder, during which her condition had begun improving. However, her symptoms reappeared after she underwent height and weight measurements along with other students in the physical education and sports class at school. Through this case, we would like to emphasize two issues. The first is that we should keep in mind that anthropometric measurements are personal data. Therefore, it is appropriate not to share it with anyone else without the person's permission. It is important to follow the health indexes in schools in the early diagnosis of some diseases as growth retardation, short stature, eating disorders etc as is known. However, care should be taken to make the measurements individually, not in groups, and to share them only to the individual and the caregivers. And the second thing that we want to discuss via this paper is that if to provide privacy of anthropometric measurements of students is not possible, such health status follow-up can be provided carried out by family physicians more frequently.

## CASE PRESENTATION

A 16-year-old girl who was followed up for 1.5 years after the diagnosis of anorexia nervosa demonstrated restricted food intake during the last two weeks of the follow-up period. Her refusal to eat food had led to a bodyweight loss of 2 kg as revealed in her last evaluation in this period. At that time, her daily calorie consumption, as stated by her, had been halved (400 kcal/d) in the last 5 days. She explained that this behavior developed after she underwent a weight measurement in her physical education and sports class along with her friends at school. She further stated that after the measurements, her friends compared their body weights, and a few of them decided to restrict their diet. Although at that time, it had been long since she had checked her weight, she stated that when she

learned her weight during the measurements conducted at school and heard the conversation of her friends, her fear of gaining weight increased. As a consequence, while she stated that it had been long since she had calculated her daily calorie intake, after the measurements at school, she began the calculations again and decided to reduce her calorie consumption thereafter. It is noteworthy that while there was evident refusal to eat food, no binge eating/vomiting and/or laxative/purgative/diuretic usage was reported in her case. Moreover, at that point, she had not been using any medication for her illness for a long time.

According to the height and weight measurements recorded at school, she (who had a history of losing up to 28 kg at the beginning of the disorder) was underweight (weight 42 kg; height 155 cm; body mass index (BMI) = 17.5 kg/cm<sup>2</sup>). Her vital signs and systemic examination were normal. She appeared fatigued, and her movements were slow. Her face had a calm and unhappy expression. Her thoughts included those of being overweight and that there would be no end to her weight gain. Her mother is a housewife, and her father is a long-distance driver. Although she stated that her relationship with her mother was normal, she also stated that her mother was controlling in her behavior. Moreover, she stated that she did not often meet her father due to his preoccupation with his job, although she again stated that there was no problem in her relationship with her father, in general, and that it was a normal father-child relationship. She also has a 23-year-old brother, with whom, as she stated, she did not share a normal brother-sister relationship as they argued several times. She expressed that she felt no strong bonding among her family members. She also felt that none of her family members understood her. There was no history of sexual or physical abuse. Her success in school was satisfactory, and she aimed to become an architect. She was a hostel resident who, as stated by her, did not get along quite well with her peers in general, had no best friend or boyfriend, and no hobby that she enjoyed. She expressed having thoughts of harming herself sometimes, particularly at times when she would be angry. The laboratory investigations conducted on admission revealed a normal complete blood count, electrolytes, sedimentation rate, liver and kidney function tests, and levels of amylase, cholesterol, and thyroid-stimulating hormone. The

case was subsequently referred to the child and adolescent psychiatry department. However, she refused drug treatment. Therefore, weekly individual supportive therapy and concurrent family counseling were recommended to her.

## DISCUSSION

Adolescence is a period in human life in which body image problems are common. Adolescents are particularly sensitive to the physical changes occurring in their bodies [6]. This leads to the adolescents being highly sensitive to the opinions of others while they attempt to find their place in the world. Meanwhile, peer groups begin to gain huge importance during adolescence. Adolescents are affected greatly by the thoughts, behaviors, and attitudes of the individuals constituting their surrounding environment. Since studies have reported a significant association between self-perception of appearance and self-confidence [7], it would not be wrong to state that perception of physical appearance is a variable that could dampen the self-confidence of adolescents [8].

Anorexia nervosa is a disorder that commonly commences during adolescence and, therefore, requires particular attention when diagnosed in this age group [9]. The disorder is characterized by low body weight, excessive fear of gaining weight, persistent behaviors that prevent weight gain, and/or a distorted body image. It is a critical mental disorder that turns into a chronic condition and, as a consequence, significantly impacts the affected patients and their families [10]. Among the premorbid characteristics prevalent in the affected individuals, perfectionism and obsessiveness are the most remarkable ones. The feeling of worthlessness appears to be the dominant one [11]. Although various treatment options are variable for this disorder, the mortality rate remains high to date [12].

The origin of the disorder might be in certain triggering factors, including criticism from other people, such as friends and family members, or hearing jokes related to weight or weight gain [13]. Effective preventive policies would positively support the school environment and enable countering the communication problems that might occur among peers. A positive school environment could be created by spreading

awareness regarding the disorder among the staff members of all departments at different schools.

The idealized and standardized body perception prevalent in the current world has taken almost everyone under its influence and given rise to a certain level of mental pressure regarding maintaining such a body image. Weight loss, diet, sports, and aesthetic applications are marketed with almost no impact from any economic crisis. Internalizing the ideal body forms and attempting to achieve such aims causes individuals to develop unhealthy behaviors, dissatisfaction with their bodies, and reduced self-confidence [14].

## CONCLUSION

It is common for schools in certain countries to conduct height and body weight measurements periodically for students to evaluate their physical health status and to subsequently provide timely interventions, including appropriate diet recommendations and exercise/sports suggestions wherever necessary. However, it is important to remember that anthropometric measurements belong to the category of personal data and, therefore, protecting the confidentiality of such data should be mandatory. The case discussed in the present study suggests that it might be more appropriate to conduct such measurements in community health centers rather than at school. Nevertheless, if such measurements are planned for schools, it must be ensured that the adolescents undergoing the measurements are not present in the same room with their adolescent friends during the measurements. It is recommended not to conduct such measurements with in the same classroom on the same day and rather schedule appointments, which would cause no inconvenience as these are individual assessments independent of group dynamics. These recommendations would prevent the possible events of peer bullying. These simple preventive approaches are important for preventing the distortion of body image and subsequent life-altering eating disorders in adolescents.

### *Authors' Contribution*

Study Conception: NK; Study Design: NK; Supervision: MEU; Funding: N/A; Materials: N/A; Data Collection and/or Processing: NK; Statistical Analysis

and/or Data Interpretation: NK; Literature Review: MEU; Manuscript Preparation: NK and Critical Review: MEU.

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