

# Body Image of Adolescents During the COVID-19 Pandemic at a Private School in Fortaleza–CE

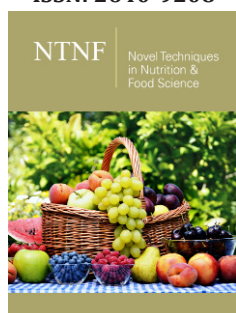
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## Abstract

**Abstract:** The present study aims to investigate the perception of body image in the period of the COVID-19 pandemic of adolescent students.

**Methods:** Using a cross-sectional, quantitative, descriptive and analytical study as a methodological approach. For data collection, the Body Image Questionnaire (BSQ) and the socioeconomic questionnaire (PENSE) were used. The sample of this research consisted of 67 students from a private school in Fortaleza-CE, high school students, aged between fifteen and eighteen years. Data were tabulated and analyzed using the Microsoft Excel program.

**Result:** 38(56.71%) subjects were free from body dissatisfaction, 12(17.91%) had mild dissatisfaction, 8(11.94%) had moderate dissatisfaction, while 9(13.43%) had severe dissatisfaction. In the different levels of body dissatisfaction, the highest proportions prevail in female adolescents (20.71%).

**Conclusion:** The results indicated become relevant with regard to dissatisfaction with body image in adolescents, with females being the most dissatisfied with their body image.

**Keywords:** Young people; Students; SARS-COV-2; Body identity

## Introduction

The COVID-19 pandemic is the current situation in which Brazil and many other countries find themselves and is part of a reality that the entire population is forced to face for circumstantial reasons caused by the virus. In fact, strategies were adopted to reduce the spread and spread of the disease with non-pharmacological preventive practices, that is, social distancing, which consisted of closing public spaces, allowing only essential activities, with a limited number of people [1-3]. With the beginning of social isolation, the use of the internet and social networks have become fundamental for carrying out daily tasks, especially for the teenage audience. As a result, there is an exacerbated use of the internet, resulting in procrastination in relation to daily tasks, poor time management, causing a decrease in physical activities, changes in diet and sleep pattern, as well as possible body changes, causing Fortaleza-CE, anxiety and stress [4]. Adolescence is the period in which the biopsychosocial maturation process takes place in an intense way, being defined by the World Health Organization, as a stage of life between ten and nineteen years old. It is characterized by morphological changes in both sexes, presenting both physical and intellectual changes. Knowing this, social interaction is extremely important for the development of adolescents, and the context of social isolation, for this public, becomes a concern, due to the possible damage that may occur [5]. However, the distortion and/or formation of the body image has also been the target of the consequences of social isolation, in which it has been greatly influenced not only by the experiences through which the teenager is inserted, but also by social media. The formation of the body image consists of the way the individual sees himself

and defines his own body, therefore, the body image is the result of the body's active relationships with other bodies, as well as with the external environment, for example: Society, culture, media and other potential influencers of body image [6,7].

Furthermore, the influence through which the formation of body image passes is due to the high imposition and standardization of the "Ideal Body", causing most adolescents to look for unhealthy means, to achieve the standard imposed through mainly the media. Adolescence is the moment in which physical and emotional transformation takes place, that is, a period in which adolescents intensely form their identity, making physical appearance important and the search for the ideal body, imposed by modern society, does not necessarily aim to health, but rather, being accepted within the standards of beauty [8]. Therefore, social isolation compromised social relationships, directly affecting adolescents, harming the formation of social identity, language, communication and body identity. Being social interaction through social networks, excessive exposure to the media is notorious, which has the potential to cause problems in the formation, perception or dissatisfaction with the body image, leading adolescents to adopt worrying measures, to feel good about themselves and with society that exposes a standard of "Perfect Body". In this sense, the objective of this study was to investigate the probable changes in the formation and perception of the body image of adolescent students in the era of social isolation.

## Methodology

This is a cross-sectional, quantitative study with a descriptive and analytical character, carried out in a private teaching unit, located in the city of Fortaleza-Ceará. The data collection period took place during the months of September and October 2021. About 110 adolescents of both sexes, and regularly enrolled in the high school of the morning shift on a scale (in-person and remote classes) greatly contributed to the realization of this study. Students who agreed to be part of the research participated, by signing the free and Informed Consent Form (ICF) by the students, the free and informed consent form for parents or legal guardians (ICF) by the parents or guardians and the consent form (TA), signed by the research participants themselves. Male and female students were included, aged between 15 and 18 years old who are part of the high school of the school. Students who have a diagnosis of mental disorders and 43 students who were not present on the day of data collection were excluded from the research. In the end, the research had the participation of 67 students.

Data collection took place over two days in a face-to-face format in October 2021. The students took a body image test, according to the Body Shape Questionnaire (BSQ) questionnaire. This tool measures the degree of concern with body shape, self-deprecation due to physical appearance and the feeling of being "fat". The questionnaire consisted of 34 questions consisting of six response alternatives, ranging from "Always" to "Never", with them always=6; very frequent=5; often=4; sometimes=3; rarely=2; never=1. Thus, the test results were given through the sum of 34 items, according

to the score: Free of body dissatisfaction-below 80 points; mild dissatisfaction-from 80 to 110 points; moderate dissatisfaction-from 110 to 140 points; severe dissatisfaction-equal to or above 140 points. Students were also submitted to the socioeconomic questionnaire (PENSE 2015, IBGE) [9]. It is worth mentioning that the questionnaire was changed, containing only the subjects of interest to the research, therefore, socioeconomic data were collected with 18 questions. The questionnaires were applied in the classroom, on printed sheets.

The results obtained from reading the articles were entered into the Microsoft Excel program. Data analysis and interpretation were performed using descriptive statistics, presenting the result of the questioned hypothesis. The present study was approved by the Research Ethics Committee (CEP), 4,997,203 because it was a research with human beings. 1), Term of Assent (Appendix 2) for minors, as well as the Term of Free and Informed Consent for parents or legal guardians (Appendix 3). The institution approved the research through the Letter of Consent (Appendix 4), following the precepts of Resolution 466, of December 12, 2012 of the National Health Council [10]. In this way, participants were invited to collaborate with the research voluntarily and their identities and personal data kept anonymous.

## Result and Discussion

Table 1 presents socioeconomic data regarding gender, race, age, access to the internet and electronic devices. It was observed that of the 67 adolescents between 15 and 18 years old, participants in the research, 44.8% were male and 55.2% were female. white skin color (67.2%), with the most prevalent age being 15 years (49.3%). Approximately 59.7% of students attended the 1<sup>st</sup> year of high school, and 100% have and have access to electronic devices, as well as the internet. Table 1: Description of socioeconomic variables. Table 2 shows the prevalence in relation to body image distortion in adolescents, 38(56.71%) subjects were free of body dissatisfaction, 12(17.91%) with mild dissatisfaction, 8(11.94%) with moderate dissatisfaction, while 9(13.43%) had severe dissatisfaction. It was also found that the prevalence of body dissatisfaction is 14.43%. Table 3 shows the association between sex and body image distortion. Note-in the different levels of body dissatisfaction, the highest proportions prevail in female adolescents. Table 4 shows the BSQ questionnaire (34 questions) based on their answers, that is, they were analyzed by the scales. Scale 1 (never), scale 2 (rarely), scale 3(sometimes), scale 4 (often), scale 5 (very often), scale 6 (always). So that scale 1 (Never) was the one that appeared the most 76.47%, secondly scale 3 (sometimes) and 6 (always) with 8.82% and fourth scale 2 (rarely) 5.88%. Adolescence is marked by a series of events related to puberty, that is, it is a cycle of many developmental transitions, which surround biological, physical, cognitive, social and emotional changes, which appear in different ways [11]. Studies show adolescence as the risk phase for the development of disorders related to body image, as they are more susceptible to influences from various means, such as culture, family members, especially the internet, since, at all times, at the moment, aesthetic standards are exposed and

established, which vary according to gender [12]. The influence by which these adolescents are absorbed can have an effect on the way they understand the social pressures related to the body and the way they create their images, having the possibility of being positive, but for the most part, these are influences that can trigger certain triggers related to body image [13]. Bringing all this context to the period of the pandemic, changes in daily routines may be even more apparent, especially with regard to the practice of physical exercises, the cultivation of sedentary activities and the use of digital media. Thus, issues associated with the body become more valuable for the adolescent public, who appear to lack visible subsistence in the Virtual Environment [14].

**Table 1:** Description of socioeconomic variables.

Source: Own Elaboration. Legend: N-Number of Adolescents.

Sex	No	%
Masculine	30	44.8
Feminine	37	55.2
Age		
15	33	49.3
16	15	22.4
17	16	23.1
18	3	4.47
Breed		
White	45	67.2
black	3	4.48
Yellow	1	1.49
brown	17	25.4
Indigenous	1	1.49
Education		
1 <sup>st</sup> year	40	59.7

**Table 4:** BSQ Questionnaire and frequency in scales.

SOURCE: Own Elaboration, CAPTION: N - Number of Answers. SCALE 1: (never); SCALE 2: (rarely); SCALE 3: (sometimes); SCALE 4: (often); SCALE 5: (very frequent); SCALE 6: (always).

Question	Scale	No	%
1. Does feeling bored make you worry about your fitness?	2 (Rarely)	19	28.35
2. Are you so concerned about your physique that you go on a diet?	1 (Never)	19	28.36
3. Do you think your thighs, hips or buttocks are too big for the rest of your body?	1 (Never)	44	65.67
4. Have you been afraid of getting fat or fatter?	3 (Sometimes)	16	23.88
5. Do you worry that your body is not firm enough?	1 (Never)	19	28.36
6. Does feeling full (for example, after eating a big meal) make you feel fat?	1 (Never)	28	41.79
7. Have you ever felt so bad about your body that you cried?	1 (Never)	35	52.24
8. Have you ever avoided running because your body could wobble?	1 (Never)	48	71.64
9. Does being with thin men (women) make you feel worried about your physique?	1 (Never)	31	46.27
10. Have you ever worried that your thighs might spread out when you sit down?	1 (Never)	33	49.25
11. Have you ever felt fat, even eating a smaller amount of food?	1 (Never)	37	55.22
12. Have you noticed the physique of other men (women) and, when comparing yourself, do you feel at a disadvantage?	6 (Always)	18	26.87

2 <sup>nd</sup> year	15	22.38
3 <sup>rd</sup> year	12	17.91
Internet		
Internet access at home	67	100
Have Electronic Devices	67	100
Total	67	100%

**Table 2:** Prevalence in relation to body image distortion in teenagers.

Source: Own Elaboration. Legend: N-Number of Adolescents/CI-Body Dissatisfaction.

Classification	No	%
Free from body dissatisfaction	38	56.71
Slight dissatisfaction	12	17.91
moderate dissatisfaction	8	11.94
serious dissatisfaction	9	13.43
Total	67	100
CI Prevalence (%)		14.43

**Table 3:** Association between sex and body image distortion.

Source: Own Elaboration. Legend: N-Number of Adolescents/CI-Body Dissatisfaction.

Classification	Masculine		Feminine	
	No	%	No	%
Free from body dissatisfaction	24	80	14	37.83
Slight dissatisfaction	3	10	9	24.32
moderate dissatisfaction	two	6.66	6	16.21
serious dissatisfaction	1	3.33	8	21.62
Total	30	100	37	100
CI Prevalence (%)	6.66		20.71	

13. Does thinking about your physique interfere with your ability to focus on other activities (such as while watching television, reading, or engaging in conversation)?	1 (Never)	28	41.79
14. Does being naked (naked), for example while showering, make you feel fat?	1 (Never)	36	53.73
15. Have you avoided wearing clothes that make you notice your body shapes?	1 (Never)	26	38.81
16. Do you imagine yourself cutting off portions of your body?	1 (Never)	33	49.25
17. Does eating candy, cakes or other high-calorie foods make you feel fat?	1 (Never)	31	46.27
18. Have you stopped attending social events (such as parties) because you feel bad about your physique?	1 (Never)	40	59.7
19. Do you feel overly large and rounded?	1 (Never)	45	67.16
20. Have you ever been ashamed of your body?	3 (Sometimes)	17	25.37
21. Does worry about your physique make you go on a diet?	1 (Never)	24	35.82
22. Do you feel happier about your physique when on an empty stomach (eg in the morning)?	6 (Always)	21	31.34
23. Do you think your current physique stems from a lack of self-control?	1 (Never)	32	47.76
24. Do you worry that other people might be seeing folds in your waist or stomach?	1 (Never)	22	32.84
25. Do you think it's unfair that other men (women) are thinner than you?	1 (Never)	48	71.64
26. Have you ever vomited to feel thinner?	1 (Never)	59	88.06
27. When accompanied, do you worry about taking up too much space (for example, sitting on a sofa or on a bus seat)?	1 (Never)	50	74.63
28. Do you worry about the fact that folds are appearing on your body?	1 (Never)	15	22.39
29. Does seeing your reflection (e.g. in a mirror or in a shop window) make you feel bad about your physique?	1 (Never)	28	41.79
30. Do you pinch areas of your body to see how much fat there is?	3 (Sometimes)	17	25.37
31. Do you avoid situations where people can see your body (e.g. changing rooms or swimming pools)?	1 (Never)	24	35.82
32. Do you take laxatives to feel thin?	1 (Never)	62	92.54
33. Are you particularly aware of your physique when in the company of others?	2 (Rarely)	17	25.37
34. Does worrying about your physique make you feel like you should exercise?	6 (Always)	24	35.82

According to Magalhães P [15], jokes regarding weight gain associated with the period of social isolation, have been common in virtual networks. In addition, as a result of isolation, there is a constant exposure to video conferences and “Selfies”, greatly increasing the need to remain visible in the “Virtual World”, which leads to the potential to intensify dissatisfaction with body image. The study states that the media influence the self-perception of body image, and there is a significant difference in this influence between the sexes, with a prevalence of 75% in females and 46.7% in males. It is noteworthy that 69.8% of those dissatisfied with their body image said they used social networks for more than three hours a day, 70% among women and 66.7 among men. This statement can be compared with the results of the present study (Table 1), in which 100% of adolescents have access to the internet, as well as to electronic devices, so it is understood that they have increased the frequency and time of use of media during the pandemic period, thus influencing the responses to the BSQ questionnaire.

Regarding gender, the group clearly identified, the descriptive data presented by the BSQ (Table 3), that 14.3% of the adolescents showed some degree of body dissatisfaction, with severe dissatisfaction being more present in girls (21, 62%) when compared to boys (3.33%). The results confirm with the study of [16] that 14% of boys and 60% of girls showed some degree of image distortion, where the most intense distortion was more prevalent in girls (25%). In another study done by [17] emphasizes that the prevalence of dissatisfaction between the sexes presents

a significant difference, with females being the one with greater body dissatisfaction. The study showed that the prevalence of dissatisfaction was 16.9% (7.7% male and 23.5% female).

According to Silva DRP [18], there is evidence that sociocultural influences, transmitted by social media and aimed at thinness, can be responsible for fixations on body image in females. In addition, she says that teenagers are more concerned with getting the body imposed as ideal than with physiological health. As a result of the exacerbated concern with aesthetic issues, factors such as changes in eating, psychological and social behavior, together or in isolation, can generate dissatisfaction with their body image and/or interfere with their well-being. It is worth mentioning that body dissatisfaction is also significantly linked to the risk of developing eating disorders among adolescents [19]. The author confirms his results through the study by [20] in which dissatisfaction with body image proved to be the greatest risk factor for the manifestation of symptoms of anorexia nervosa. Therefore, the results of the current research confirm the data obtained in other studies carried out on the subject and indicate the existence of a greater concern and dissatisfaction with the body image in female adolescents. However, the male audience, despite having a low prevalence of body dissatisfaction compared to females, there is also a frequent explanation in the media of “Patterns” of male bodies with apparent definitions and muscles, which is associated with high body dissatisfaction among the male sex [21].

Regarding the questions of the BSQ questionnaire, there was a frequency of responses according to the scales (Table 4). The questions that obtained the highest scales emphasize body dissatisfaction, with subjects such as feeling ashamed of the body, concern with the physical to the point of exercising, pinching areas of the body to check for the presence of fat, feeling happy for being on an empty stomach and fear of getting fat. They were question number four, with 16 answers on scale 3 (23.88%), question number twelve, with 18 answers on scale 6 (26.87%), question number twenty, with 17 answers on scale 3 (25.37%), question number twenty-two, with 21 answers on scale 6 (31.34%), question number thirty, with 17 answers on scale 3 (25.37%) and question number thirty-four, with 24 responses on scale 6 (35.82%). The questions mentioned above emphasize body dissatisfaction, with subjects such as feeling ashamed of the body, worrying about the physique to the point of exercising, pinching areas of the body to check for the presence of fat, feeling happy to have an empty stomach and feeling afraid of getting fat. In reviewing the findings of Firoozjah et al. [22,23], and the "Present Study", there are several convergent themes and notable distinctions that are worth discussing. All three studies underscore the critical influence of the COVID-19 pandemic on adolescent body image perceptions and eating behaviors. Nevertheless, the impacts manifest differently based on specific demographic factors, such as gender, athletic involvement, and geographical location, and the related social and cultural pressures.

Firoozjah et al. [22] made an important contribution by considering the unique challenges faced by athletes in a pandemic context. They illustrated the divergent impacts on individual and team sports participants, revealing more pronounced eating disorders symptoms and body image distortions among individual sports athletes, who often face more stringent "Leanness" expectations. Conversely, Choukas-Bradley et al. [23] highlighted how technology use during the lockdown period might escalate body image concerns and subsequent depressive symptoms in adolescent girls, an aspect not investigated in the other two studies. The "Present Study" elucidates the prevalence of body dissatisfaction among adolescents, particularly females, but it stops short of exploring the factors contributing to this issue. Altogether, these studies provide a multifaceted perspective on the body image issues during the COVID-19 pandemic. They signal a need for further inquiry into specific variables such as the role of online behaviors, the dynamics in various sports types, and the long-term psychological impact. They also call for tailored intervention strategies that take these variables into account to effectively address and mitigate body image and eating disorder issues among adolescents in a pandemic context.

## Conclusion

In view of the findings, we found that 56.71% (38 adolescents) are free of body dissatisfaction, on the other hand, it was analyzed a prevalence of dissatisfaction with body image of 14.43% and between genders - there was a great discrepancy, being the female sex the most affected. The results indicated become relevant with regard to dissatisfaction with body image in adolescents and

highlights the information that body image has been influenced mainly by the media due to social isolation, in which individuals needed to change their routines, remain in their residences and adopt measures to distance people as a control measure to prevent the spread of the disease, as an effect, it strengthened the use and time spent on the internet, where there is increasingly an exposure and impositions of "Ideal" bodies. It is important to note that dissatisfaction with body image has the potential to trigger eating disorders such as Bulimias, Anorexia, compulsions and problems such as anxiety. This is due to the obsession with fitting into the body and the standards imposed by the environment in which the teenager is inserted (family, media, school).

In this sense, the usual behaviors adopted during adolescence may prevail during adult life, and simultaneously with other health risk reasons, increase the occurrence of psychological, physiological and social disorders. As a measure to help prevent body image disorders, the school environment can develop actions aimed at strategies and plans for greater acceptance of the teenager with his body. Since in this period a series of physical, cognitive, social and psychological changes occur. In this way, the present work can substantially favor thoughts and discussions about this issue and the adoption of public policies aimed at the school environment.

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