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(Dis)satisfaction With Body Image, Lifestyles and Life Satisfaction in Higher Education Students

(In)satisfacción con la imagen corporal, estilos de vida y satisfacción con la vida en estudiantes de enseñanza superior

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Declaration of interests

The authors have declared that there is no conflict of interest.

Data availability

All relevant data is in the article. For further information, contact the corresponding author.

Abstract

Objective. Body image is a predictor of physical, psychological, and social health. Therefore, it can be an indicator for detecting health problems, to be used in the context of higher education. The aim of this study was to assess body image satisfaction in higher education students and to determine whether body image dissatisfaction is related to lifestyle behaviours and life satisfaction.

Methodology. This study included 166 Portuguese higher education students. Body image was assessed using the Figure Rating Scale. Active choices during everyday life were assessed using the Active Choice Index. The questionnaire also included questions about sleep behaviour and tobacco and alcohol consumption. Satisfaction with Life was assessed using a five-item scale previously adapted for the Portuguese population.

Results. There was a predominance of boys dissatisfied with thinness (26.10%), while the majority of girls revealed that they were dissatisfied due to being overweight (55.70%). The results indicate statistically significant differences between boys and girls in terms of body image categories ($p < 0.001$). However, when we analysed the behaviours separately according to gender, there were no differences. Active behaviours, as well as the other health behaviours analysed (hours of sleep per week and alcohol and tobacco consumption) did not differ between the different levels of body image satisfaction ($p > 0.05$).

Conclusion. Most of the students are dissatisfied with their body image, with the majority of girls showing dissatisfaction due to being overweight. Lifestyles and life satisfaction do not differ between students who are satisfied and those who are dissatisfied with their body image.

Keywords

Body image; life satisfaction; lifestyles; daily active choices; sleep; tobacco; alcohol; students; higher education; cross-sectional study.

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Conceptualization, data curation, formal analysis, funding acquisition, investigation, methodology, project administration, resources, software, supervision, validation, visualization, writing – original draft, writing – review & editing.

Vânia Loureiro: visualization, writing – review & editing.

Bebiana Sabino: Conceptualization, data curation, formal analysis, funding acquisition, investigation, methodology, project administration, resources, software, supervision, validation, visualization, writing – original draft, writing – review & editing.

Resumen

Objetivo. La imagen corporal es un factor predictivo de la salud psicológica, física y social. Por lo tanto, puede ser un indicador para detectar problemas de salud, para utilizar en el contexto de la educación superior. El objetivo de este estudio fue evaluar la satisfacción con la imagen corporal en estudiantes de enseñanza superior y determinar si la insatisfacción con la imagen corporal está relacionada con los comportamientos de estilo de vida y la satisfacción con la vida.

Metodología. En este estudio participaron 166 estudiantes portugueses de enseñanza superior. La imagen corporal se evaluó mediante la escala Figure Rating Scale. Las elecciones activas durante la vida cotidiana se evaluaron mediante el Active Choice Index. El cuestionario también incluía preguntas sobre el comportamiento durante el sueño y el consumo de tabaco y alcohol. La satisfacción con la vida se evaluó mediante una escala de cinco ítems previamente adaptada a la población portuguesa.

Resultados. Predominaron los chicos insatisfechos por delgadez (26.10%), mientras que la mayoría de las chicas revelaron estar insatisfechas por sobrepeso (55.70%). Los resultados indican diferencias estadísticamente significativas entre chicos y chicas en cuanto a las categorías de imagen corporal ($p < 0.001$). Sin embargo, al analizar los comportamientos por separado en función del sexo, no se observaron diferencias. Las conductas activas, así como las demás conductas de salud analizadas (horas de sueño semanales y consumo de alcohol y tabaco) no difirieron entre los distintos niveles de satisfacción con la imagen corporal ($p > 0.05$).

Conclusiones. La mayoría de los estudiantes están insatisfechos con su imagen corporal, siendo mayoritaria la insatisfacción de las chicas por sobrepeso. Los estilos de vida y la satisfacción vital no difieren entre los alumnos satisfechos y los insatisfechos con su imagen corporal.

Palabras clave

Imagen corporal; satisfacción con la vida; estilos de vida; opciones activas diarias; sueño; tabaco; alcohol; estudiantes; enseñanza superior; estudio transversal.

Introduction

Body image can be developed through an individual's conscious thoughts, feelings, and perceptions of themselves and is not necessarily linked to physical appearance, since body image differs depending on the cognitive, behavioural, emotional, cultural, and perceptual elements of the individual in question [1]. This can change throughout life because it depends on the self-esteem of the subjects themselves [2]. As individuals navigate through life's diverse experiences and interpersonal interactions, their evolving self-esteem intricately intertwines with societal norms, personal beliefs, and social comparisons, continuously moulding and reshaping the subjective perceptions of their own bodies.

The pressure to achieve the ideal body, imposed by society, has contributed to an excessive increase in body dissatisfaction and concern about weight, sometimes leading people to achieve extreme thinness, adopt risky behaviours and develop diseases [3,4]. Body dissatisfaction begins to develop mostly in adolescence [5,6] and is especially present in the female sex, since women and girls are more concerned with

having a weight within the parameters defined as normal and a good physical condition [7,8]. According to Grossbard [9], women are more concerned about their weight. On the other hand, men have a better perception of their body image, greater self-esteem and a greater desire for muscularity.

Low satisfaction with body image is associated with unhealthy habits and individuals are more likely to gain weight, avoid public places and avoid exposing their bodies [10,11], as well as develop depression, anxiety, and mental illness [12-14].

The lifestyle of the population should be understood as the choices that each individual makes that are reflected in their behaviour. In this context, lifestyle includes behaviours such as physical activity, sleeping or eating [15]. The student period is considered a bridge between adolescence and adulthood, and the stabilisation of these behaviours during this period can affect the whole of life [16]. According to Baron et al. [17], male higher education students tend to fulfil the recommendations for physical activity for health more than girls. However, in an analysis carried out by Lobo [18] on body image satisfaction in higher education students, both boys and girls were dissatisfied.

The literature shows that an active lifestyle is related to improved life satisfaction [19], specifically with regard to university students [20]. Life satisfaction is a measure of mental well-being that evaluates a person's feelings and attitudes towards life at a given time. It is a global method of cognitive self-assessment of well-being through a set of factors related to the individual's lifestyle, including work, family, physical and mental health, and sex life [21].

Given the importance of satisfaction with body image in the population's health, this study seeks to assess satisfaction with body image in higher education students and whether dissatisfaction with body image is related to lifestyle behaviours and life satisfaction. Understanding body image satisfaction among higher education students is paramount, as this demographic faces unique social and academic pressures that may influence their perceptions of self-image. By examining potential correlations between body image dissatisfaction and lifestyle behaviours such as exercise patterns, dietary habits, and substance use, the study aims to elucidate the complex interplay between physical and mental well-being among students. Moreover, investigating the impact of body image dissatisfaction on life satisfaction can provide valuable insights into strategies for promoting holistic well-being among this population. Ultimately, this research contributes to the broader discourse on mental health and quality of life among higher education students, offering actionable insights for interventions aimed at fostering healthier lifestyles and improved body image perception.

Methodology

Sample

This study involved 166 higher education Portuguese students, 97 female and 69 male, with an average age of 21.57 (± 4.3) years. The students attended Higher Technical Courses (31.93%) and Undergraduate Degrees in the Schools of Education (58.4%), Agriculture (1.2%) and Health (40.4%). Of all the courses, 56% of the students derived from the sports programmes.

Instruments

Weight was measured using a SECA 750 mechanical scale. Height was measured with a SECA stadiometer.

Body Image. Body image was assessed using the Figure Rating Scale [22], in which nine silhouettes of boys and nine of girls are presented. The students indicate which silhouette best represents their current image and which of the silhouettes reflects their ideal image. The score representing satisfaction with body image is calculated using the difference between the ideal image and the current image, and is categorised into three levels: “satisfied” (score = 0); “dissatisfied due to excess weight” (score > 0); and “dissatisfied due to thinness” (score < 0).

Behaviours

- *Active.* Active choices during daily life were assessed using the Active Choice Index [23]. Each daily activity (e.g., climbing stairs instead of using lifts or escalators) is assessed on a Likert scale from 1 (Never) to 5 (Whenever possible). The active behaviour score corresponds to the average of the 6 questions, with higher values corresponding to more active behaviour.
- *Sleep hours.* Students were asked about the average number of hours they slept during the week and at the weekend.
- *Tobacco and alcohol consumption.* Students were asked if they currently smoked. As for alcohol consumption, they were asked about the number of days in the last 30 that they had consumed alcohol.
- *Satisfaction with Life.* Satisfaction with life was assessed using a five-item scale developed by Diener et al. [21] and adapted for the Portuguese population by Reppold et al. [24]. The answers are on a 5-point Likert scale ranging from “strongly disagree” to “strongly agree”. The Satisfaction with Life score varies between 5 and 30, and the higher the value, the higher the level of satisfaction.

Procedures

During World Physical Activity Day 2022, which was publicised to all students on campus, various activities took place for the educational community. The students who took part in these activities were made aware that the questionnaire was available to fill in via a QR code. The sample for this study therefore included the students who took part in this activity, making it a convenience sample. Before filling in the questionnaire, the participants expressed their interest in taking part in the study through informed consent, in accordance with the Declaration of Helsinki.

Statistical analysis

Data analysis was carried out using the IBM SPSS 28 programme. Descriptive statistics were presented in the form of mean and standard deviation or absolute and relative frequency. Comparisons between the sexes were made using Student’s t-test and the Chi-square test. The Kruskal-Wallis test and the Chi-square test were used to compare body image categories (“satisfied”, “satisfied with thinness” and “satisfied with excess weight”) with regard to life satisfaction, hours of sleep, Active Choice Index, and alcohol and tobacco consumption. A 5% significance level was used for all tests.

Results

After analysing the data, with regard to the characteristics of the sample, it was found that body weight and height averaged 67.24 kg (± 12.82) and 167.84 cm (± 10.62), respectively.

The average scores for perceived and desired body image, based on the Figure Rating Scale, were 2.89 (± 1.28) and 2.48 (± 0.94), respectively. On average, respondents reported consuming alcohol 4.10 days (± 5.01) a week; sleeping 7.25 hours (± 1.11) during the week and 8.60 hours (± 1.62) at the weekend. The majority of the sample (74.70 per cent) reported not using tobacco. On average, the life satisfaction score was 17.28 (± 3.56), out of a range of 0 to 30. Active choices during everyday life, assessed using the Active Choice Index, showed an average of 3.09 (± 0.89) on a scale of 1 to 5. With regard to body image satisfaction, while 42.8 per cent of the sample said they were satisfied with their body image, 42.2 per cent said they were dissatisfied because they were overweight (Table 1).

Table 1 also shows the differences between the sexes, calculated using Student's t-test. Thus, there were statistically significant differences ($p < 0.05$) between female and male with regard to perceived ($p = 0.041$) and desired ($p = 0.014$) body image and satisfaction with body image ($p < 0.001$). Males had higher mean values for desired body image (2.67 ± 0.90). On the other hand, females had higher mean values for perceived body image (3.03 ± 1.33). There is a predominance, although slight, of boys who are satisfied with their body image (50.70 %); on the other hand, there is a predominance of girls who are dissatisfied with being overweight (55.70 %). However, males were more dissatisfied with thinness (26.10%) than females (7.20%).

Table 2 and Table 3 show the differences in body image satisfaction according to the variable's life satisfaction, Active Choice Index, alcohol consumption, sleep hours (week and weekend), and tobacco consumption in males and females, respectively. Analysis of variance (Kruskal-Wallis test) was used to assess the possible existence of differences in body image satisfaction in relation to life satisfaction and lifestyle behaviours: Active Choice Index, alcohol consumption, hours of sleep (weekdays and weekends) and smoking, in males and females. There were no differences between the categories of satisfaction with body image in the different behaviours analysed, in either males or females.

Discussion

Body image has been recognised in the literature as a public health issue and different components of body image are associated with the physical, mental, and social health of higher education students [25,26]. Satisfaction with body image is related to favourable health behaviours, making it an indicator of general health [27]. The aim of this study was to assess body image satisfaction and its relationship with life satisfaction and lifestyles.

The majority of the students in our sample reported dissatisfaction with their body image, either because they were thin or overweight. These results are similar to those presented in other studies with university students [28,29]. Analysing body image satisfaction by gender, this study found that the majority of males are satisfied with their body image; however, males are also more likely to be dissatisfied due to thinness, since, as several studies indicate, men are more likely to desire greater muscularity [9,30]. On the other hand, females were dissatisfied with their body image because they were overweight. This difference between the sexes, in which satisfaction with body image is higher in boys compared to girls, is in line with what has been postulated in other studies [29-32].

Table 1. Characteristics of the sample.

	Total		Female		Male		<i>p</i>
	M	±SD	M	±SD	M	±SD	
Age (years)	21.47	±4.30	21.52	±4.15	21.41	±4.53	0.436
Weight (kg)	67.24	±12.82	62.84	±12.05	73.42	±11.30	<0.001
Height (cm)	167.84	±10.62	160.61	±6.07	178.00	±6.51	<0.001
Body Image							
<i>Perceived</i>	2.89	±1.28	3.03	±1.33	2.68	±1.18	0.041
<i>Desired</i>	2.48	±0.94	2.34	±0.96	2.67	±0.90	0.014
Alcohol consumption (n° of days)	4.10	±5.01	3.58	±4.12	4.83	±6.00	0.057
Sleep hours (n° of hours/ weekday)	7.25	±1.11	7.27	±1.13	7.22	±1.10	0.392
Sleep hours (n° of hours/ weekend)	8.60	±1.62	8.51	±1.57	8.74	±1.69	0.181
Life Satisfaction	17.28	±3.56	17.52	±3.41	16.96	3.77	0.160
Active Choice Index	3.09	±0.89	3.09	±0.89	3.10	±0.89	0.491
	n	%	n	%	n	%	<i>p</i>
Satisfaction with body image (%)							
<i>Satisfied</i>	71	42.80	36	37.10	35	50.70	<0.001
Dissatisfied due to thinness	25	15.10	7	7.20	18	26.10	
Dissatisfied with being overweight	70	42.20	54	55.70	16	23.20	
Tobacco consumption							
<i>Yes</i>	26	15.70	14	14.40	12	17.40	0.627
<i>No</i>	124	74.70	72	74.20	52	75.40	
<i>Sometimes</i>	16	9.60	11	11.30	5	7.20	

Table 2. Differences in body image satisfaction in relation to the variables life satisfaction, Active Choice Index, alcohol consumption, sleep hours (week and weekend) and tobacco consumption in males.

	Satisfaction with body image						<i>p</i>
	<i>Satisfied</i>		Dissatisfied due to thinness		Dissatisfied with being overweight		
	M	±SD	M	±SD	M	±SD	
Life Satisfaction	17.40	±3.59	17.61	±1.88	15.25	±5.20	0.300
Active Choice Index	3.16	±0.92	3.14	±0.92	2.92	±0.83	0.464
Alcohol consumption (n° of days)	4.46	±5.11	6.28	±7.85	4.00	±5.55	0.567
Sleep hours (n° of hours/weekday)	7.15	±1.02	7.47	±1.24	7.09	±1.11	0.873
Sleep hours (n° of hours/weekend)	8.40	±1.38	9.67	±2.16	8.44	±1.41	0.126
	n	%	n	%	n	%	<i>p</i>
Tobacco consumption							
<i>Yes</i>	6	17.10	3	16.70	3	18.80	0.697
<i>No</i>	26	74.30	15	83.30	11	68.80	
<i>Sometimes</i>	3	8.60	0	0	2	12.50	

Dissatisfaction with body image has consequences for young people's health, such as depressive symptoms, adoption of unhealthy body weight management behaviours, and the development of eating disorders [33,34]. Given these risk factors that are associated with the presence of body image dissatisfaction, as well as the secular trend towards an increase in the prevalence of body image dissatisfaction in both sexes [27], it is important to define strategies to reverse this increase, educating about health behaviours and preventing the development of other health complications.

Entering higher education is a time of transition between adolescence and adulthood, characterised by greater autonomy and lack of parental supervision, which can lead to stress problems [35] and compromise health behaviours [36]. Active behaviours, as well as the other health behaviours analysed in this study (hours of sleep per week and alcohol and tobacco consumption), did not differ between the different levels of body image satisfaction. However, a meta-analysis study by Campebell and Hausenblas [37] emphasises the importance of physical exercise in body image perception. The study by Ancos et al. [38] is also not in line with our results in indicating that fewer hours of sleep and poor sleep quality may be related to having a higher body weight and greater dissatisfaction with body image. Other studies carried out on university students corroborate that a low level of physical activity is a predictor of body image dissatisfaction [39]. The overall results of this study can be explained by the fact that the level of physical activity was not considered, but rather the active behaviour scale (Active Choice Index). This scale exclusively considers daily active behaviours but does not include physical exercise.

Table 3. Differences in body image satisfaction in relation to the variables life satisfaction, Active Choice Index, alcohol consumption, sleep hours (week and weekend) and tobacco consumption in females.

	Satisfaction with body image						<i>P</i>
	<i>Satisfied</i>		Dissatisfied due to thinness		Dissatisfied with being overweight		
	M	±SD	M	±SD	M	±SD	
Life Satisfaction	17.00	±3.42	16.57	±3.05	17.98	±3.38	0.309
Active Choice Index	3.24	±0.81	2.40	±0.84	3.08	±0.92	0.075
Alcohol consumption (n° of days)	4.06	±5.00	2.29	±1.89	3.43	±3.66	0.835
Sleep hours (n° of hours/weekday)	7.31	±1.04	7.67	±0.94	7.20	±1.21	0.551
Sleep hours (n° of hours/weekend)	8.65	±1.86	8.93	±1.24	8.35	±1.40	0.761
	n	%	n	%	n	%	<i>p</i>
Tobacco consumption							
<i>Yes</i>	5	13.90	1	14.30	8	14.80	0.207
<i>No</i>	26	72.20	3	42.90	43	79.60	
<i>Sometimes</i>	5	13.90	3	42.90	3	5.60	

Longitudinal studies show that an insufficient number of hours of sleep is a risk factor for overweight and obese nutritional status [40]. It is also known that body image perception is a predictor of nutritional status [41]. In our study, it was found that students who were dissatisfied with their body image (due to being overweight) also slept fewer hours at the weekend, which, in accordance with the above, could influence their nutritional status [40,41].

Body image satisfaction is strongly associated with the development of depressive symptoms and life satisfaction in young adults, as they are under great social and peer pressure to conform to social images of attractiveness and imitate the cultural ideal [42]. The relationship between body image satisfaction and life satisfaction was not statistically significant in this study, contrary to previous studies [43,44].

Based on the limitations of this study, it is possible to point to potential future recommendations. Firstly, the sample characteristics in terms of size and diversity. One of the constraints of our study is related to the constitution of the sample, since it is made up mostly of students from the School of Education, namely students attending the Sports programme. The literature shows that students from this area have a positive satisfaction with their body image compared to students from other areas [45]. Secondly, it would be important to assess the level of physical activity, preferably using objective methods, in order to clarify the influence of physical activity on the perception of body image and its mediating effect on life satisfaction.

Conclusions

In conclusion, study underscores the critical significance of body image satisfaction among higher education students and its profound implications for their overall health and well-being. With body image recognized as a pivotal aspect of public health, it becomes evident that various components of body image intertwine with the physical, mental, and social health of students.

The research underscores the detrimental repercussions of body image dissatisfaction on young adults' health, including increased risks of depressive symptoms, unhealthy weight management practices, and eating disorders. Urgent strategies are warranted to address rising prevalence rates, particularly among both sexes, through targeted interventions and support mechanisms. Education on health behaviours and preventative measures emerges as essential in fostering healthier body image perceptions and mitigating associated health complications.

Furthermore, the research underscores the transitional nature of higher education, marked by increased autonomy and evolving health behaviours. While certain lifestyle factors such as physical activity were not directly assessed, existing literature underscores its pivotal role in shaping body image perceptions.

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