Body image perception in scholars of a school in the Brazilian north region

Leila A. Evangelista¹, Denise Aerts², Gehysa G. Alves³, Lilian Palazzo⁴, Sheila Câmara⁵, Maria Helena Jacob⁶

INTRODUCTION

Body image conceives all the ways of the human experience and conceptualizes your own body, enabling its positioning in the existential and personal context¹. The perceived body image is linked to an understanding of wider concepts of image and body, and to the subjectivity of the person who is marked by their complex physical, psychological, environmental and behavioural experiences². Contemporary society worships the body as the source of identity. Sociocultural factors and the large range of media increasingly influence the search for an ideal of physical beauty, closely related to happiness, eventually causing discontent and distancing the person from their real body³.

Adolescence is a particularly significant stage for healthy emotional development, due to the inherent

Abstract:

Introduction: In the adolescence period, an individual experiences biopsychosocial changes and dissatisfaction with body image is quite prevalent at this stage.

Objective: To investigate the prevalence of body image dissatisfaction and its association with demographic and psychosocial factors, sexual maturity, nutritional condition and lifestyle.

Methods: Cross-sectional study with a sample representing 831 eighth grade students from Porto Velho, Rondônia, Brazil, stratified into clusters. The data were obtained by questionnaires - the Body Shape Questionnaire and Global School-based Student Health Survey - and anthropometry. The associations of interest were tested in a multivariate analysis with Cox regression adjusted for cross-sectional studies.

Results: The prevalence of body image dissatisfaction was 22 per cent. The outcome was significantly more prevalent among girls (PR: 4.69; CI: 95%: 3.09 – 7.12), young Caucasians (PR: 1.32; CI: 95%: 1.02 – 1.72), those who used tobacco (RP: 1.53; CI: 95%: 1.12 – 2.09), who were overweight or obese (PR: 2.77; CI: 95%: 2.18 – 3.51), and who reported feelings of sadness (PR: 1.35; CI: 95%: 1.05 – 1.73) and loneliness (PR: 1.66; CI: 95%: 1.30 – 2.11). The students with lower weight were more satisfied with their image.

Conclusion: The results point to the need for parents, educators and health professionals to act jointly in developing actions that reinforce the positive qualities of youth, especially in girls. Encouraging physical activity and healthy habits can promote overall health, improving satisfaction with body image.

Keywords: adolescent; adolescent health; body image; body dissatisfaction.

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changes of puberty. The young person believes that, to be accepted, their body must conform to established ‘standards’ and so often becomes dissatisfied, leading to distortions in their body image. Adolescents, regardless of gender, are concerned with their body image, but there is a higher prevalence of dissatisfaction with body image in female students. Sociocultural pressures lead females to an ideal of extreme thinness and males to an athletic and muscular torso. These are images that constantly reach young people through various media - commercials, films, television.

In search of the ideal appearance, young people can adopt damaging behaviours and habits, reaching more serious situations such as anorexia or bulimia, or use of licit and illicit substances. Adolescence is a critical time for these behaviours, especially the use of alcohol (the most used drug by adolescents), tobacco and marijuana, which is one of the biggest concerns in terms of public health.

Body image covers physiological, cognitive, emotional and social processes, and it may result in determining lifestyles and psychosocial characteristics. Because of this, the present study aimed to investigate the prevalence of concern over body image in adolescents in Porto Velho, Rondônia, Brazil, and its association with demographic and psychosocial factors, sexual maturity, nutritional condition and lifestyle. The results may support public policies on health and education to promote school health and improve quality of life in a poorly studied region.

### METHODS

This research was part of a larger study entitled ‘Health education of the public school system in the northern region of Brazil’. The satellite project took place in Porto Velho, Rondônia, Brazil, a city on the right bank of the Madeira River, a River Amazon tributary. The city has a poor periphery, with little order and infrastructure; it has an estimated population of 494,013 people and a population density of 12.57 inhabitants/km² (IBGE, 2014).

The target population of this cross-sectional study consisted of 4,667 students from the eighth grade of elementary public schools, enrolled in 2010 in 47 schools, in morning and afternoon shifts. To calculate the sample size, this number was taken as a starting point, estimating the prevalence of concern over body image in adolescents in Porto Velho, Rondônia, Brazil, and its association with demographic and psychosocial factors, sexual maturity, nutritional condition and lifestyle. The results may support public policies on health and education to promote school health and improve quality of life in a poorly studied region.

The population number was randomly selected as 1,075, having 244 losses (22.7 per cent), resulting in a final sample of 831 adolescents. Losses occurred due to refusal to participate in the study, non-delivery of the informed consent (WIC), school change or contact impossibility after three attempts. As the sample was calculated with a margin of 25 per cent, those losses could be absorbed without damage to the study. This number of subjects has 80 per cent power to detect higher interest associations, equal to 1.5.

Four data collection instruments were used along with a form for recording anthropometric data per class, which also served as the control of the research instruments and delivery of CI. This worksheet contained the student’s name, weight, height, gender, self-reported skin colour, date of birth and evaluation. The skin colour variable was categorized after collection as white or non-white.

The first instrument was a self-administered questionnaire known as the Body Shape Questionnaire (BSQ), validated for use in adolescents. In national polls, it is the most used and easy to understand instrument. There are 34 items that assess concern with weight gain, low self-esteem due to physical appearance, desire for weight loss and worry (dissatisfaction) with body image. With the added points, the outcome analysed was binary concern/dissatisfaction with body image: no (<81 points) and yes (≥81 points).

The second instrument was the self-assessment form of sexual maturation derived from Tanner, which evaluates the perception of sexual maturity through images that indicate five different stages of development of secondary sexual characteristics for both genders. Stage 1 refers to infant characteristics; stage 2 is the first manifestations of sexual maturity or onset of puberty; stage 3 corresponds to changes in body composition or the growth spurt; in stage 4 there is a slowdown in growth; and stage 5 indicates the completion of the process of sexual maturation. For the analyses, sexual maturity was put into three categories, covering stages 1 and 2; stage 3; and stages 4 and 5.

The third instrument was a self-administered questionnaire on physical activity and economic situation, based, respectively, on the International Physical Activity Questionnaire (IPAQ)4, which classifies as physically active a youth who reports 300 minutes or more of weekly activity, and the Brazilian Association of Research Companies questionnaire (ABEP)5, which brings together people in economic classes A (high), B, C, D and E (low). Due to the small number of subjects in the extreme categories, classes were regrouped into A and B, C, and D; there is no case of class E.

The fourth instrument was a self-administered questionnaire on various factors and outcomes under study, based on the Global School-based Student Health Survey (GSHS), proposed by the WHO to assess the exposure to health risk behaviours in adolescents, validated for the Portuguese language.

In terms of anthropometry, weight was measured with G-Tech digital scales, capacity 150 kg and precision 50 g, and height with WISO anthropometric fiberglass tape with pinpoint accuracy. Young people were measured with minimal clothing (underwear) and barefoot, in private, with routinely calibrated and technical equipment recommended by the WHO. Body Mass Index (BMI) was assessed using the National Council of Health.
Sciences (NCHS) curves, according to gender and age in months\(^{14}\), where the relevant classifications were underweight (<5th percentile), normal weight (between percentiles 5 and 85) and overweight/obesity (> 85th percentile).

Data were collected by an academic in physical education of the university ILES/ULBRA-PVH and a Master’s in Public Health ULBRA-RS, properly trained for this purpose. The collection was carried out in schools in the student class shift.

For the investigation of associations of interest, univariate and multivariate analyses were performed using Cox regression, modified for cross-sectional studies. Dissatisfaction with body image was used as a dichotomous dependent variable and the others as associated factors. Cox regression was applied using a hierarchical model in three stages; the criterion for participation in the stage was a significance level of <0.20. In the first stage of the multivariate analysis, along with the outcome, the variables entered into the model were gender, age, skin colour and economic status. In the second stage, the following variables were added: physical activity, use of tobacco in life, alcohol and drugs, nutritional condition and sexual maturation. In the third stage, the variables of first sexual intercourse, suicidal thoughts, feelings of sadness and feelings of loneliness were introduced. The final model included variables with a significance level <0.05, originally introduced in the previous steps.

The students were contacted for invitation and explanation of the research. They received a consent form for parents or guardians and guidance on the signature thereof, authorizing participation. This research was approved by the Research Ethics Committee of the Lutheran University of Brazil (No. 2009-251H) and authorized by SEDUC-RO, being secured to the ethical aspects interviewed, as required by Resolution 196/96\(^{10}\). The research was conducted according to the standards required by the Declaration of Helsinki\(^{20}\).

### RESULTS

#### Characteristics of adolescents studied

The study population comprised 831 public school pupils from Porto Velho, Rondônia, Brazil, of whom 56.7 per cent (471) were female. In all, 648 children (78 per cent) were classified as not concerned with body image, 117 (14 per cent) were slightly concerned, 44 (5.3 per cent) were moderately concerned and 22 (2.7 per cent) were extremely concerned about their image.

The ages ranged between 12 and 19 years, with a mean of 14.34 years (SD = ± 1.01); the highest concentration was in the range of 14 to 15 years (70.7 per cent). Most teens (74 per cent) declared the mselves non-concerned with their body image but, among the dissatisfied, most were female. Such female dissatisfaction may be associated with the fact that the maturation of girls is earlier than boys. Other studies, in contrast, have shown that male adolescents showed greater dissatisfaction with their body image\(^{21,22}\). Comparing the data from the National School of Health (PeNSE) 2009 and 2012, Malta and colleagues\(^{19}\) found no significant difference in body image perception between the genders in both editions of the study. This controversial framework encourages further research on body image and the numerous variables related to it in this important phase.

In Gravataí, Rio Grande do Sul, Brazil\(^{23}\), the prevalence of satisfaction among adolescent students was 75.1 per cent, quite similar to that in Porto Velho. However, among girls, it was only 59.8 per cent. In this study, the

#### Factors associated with preoccupation with body image

In the first stage of the multivariate analysis, of the four variables that entered the model, only gender and skin colour were associated with the outcome. Girls reported 4.69 times more concern than boys, and whites had 32 per cent more concern than their reference pairs (Table 1).

In the second stage, of the six variables, only use of tobacco and nutritional condition were significantly associated with the outcome. Young people with low birth weight showed 67 per cent less concern than eutrophic. In contrast, overweight/obesity prevalence showed nearly three times (PR: 2.77) more concern than the reference category. Similar to these, the students who tried smoking reported 53 per cent more concern than those who had never experimented (Table 1).

In the third stage, despite all the variables having been associated with the outcome in the univariate analysis, only young people who reported feelings of sadness and loneliness had, respectively, 35 per cent and 66 per cent more concern over body image than their reference counterparts. Thus, the final model included the variables gender, skin colour, use of tobacco, nutritional status, feelings of sadness and loneliness (Table 1).

### DISCUSSION

The media influences today’s society and sociocultural factors associated with particular body image shape the success of affective relationships and good economic condition. Because of this, we must be alert to the influence of strict standards of beauty on the self-image of adolescents. In this study, a high percentage (78 per cent) of young people were found not to be concerned about their body image but, among the dissatisfied, most were female. Such female dissatisfaction may be associated with the fact that the maturation of girls is earlier than boys. Other studies, in contrast, have shown that male adolescents showed greater dissatisfaction with their body image\(^{21,22}\). Comparing the data from the National School of Health (PeNSE) 2009 and 2012, Malta and colleagues\(^{19}\) found no significant difference in body image perception between the genders in both editions of the study. This controversial framework encourages further research on body image and the numerous variables related to it in this important phase.

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### Table 1: Population distribution of the variables of interest and univariate and multivariate Cox regression for concern with body image among adolescents from public schools, Porto Velho, Rondônia, 2010

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>CONCERN WITH THE BODY IMAGE</th>
<th>UNIVARIATE ANALYSIS</th>
<th>MULTIVARIATE ANALYSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>N %</td>
<td>RP</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>360</td>
<td>26.7</td>
<td>1.00</td>
</tr>
<tr>
<td>Female</td>
<td>471</td>
<td>33.3</td>
<td>4.61</td>
</tr>
<tr>
<td><strong>Age (years)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 14</td>
<td>141</td>
<td>21.3</td>
<td>1.00</td>
</tr>
<tr>
<td>14 a 15</td>
<td>586</td>
<td>23.0</td>
<td>1.08</td>
</tr>
<tr>
<td>&gt; 16</td>
<td>102</td>
<td>17.7</td>
<td>0.83</td>
</tr>
<tr>
<td><strong>Skin colour</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>203</td>
<td>30.0</td>
<td>1.55</td>
</tr>
<tr>
<td>Non-white</td>
<td>578</td>
<td>19.4</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Classif. econômica</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A+B</td>
<td>439</td>
<td>21.0</td>
<td>1.00</td>
</tr>
<tr>
<td>C</td>
<td>362</td>
<td>23.5</td>
<td>1.12</td>
</tr>
<tr>
<td>D</td>
<td>24</td>
<td>25.0</td>
<td>1.19</td>
</tr>
<tr>
<td><strong>Physical Activity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 300'</td>
<td>436</td>
<td>17.4</td>
<td>1.00</td>
</tr>
<tr>
<td>150' a 299'</td>
<td>207</td>
<td>24.1</td>
<td>1.38</td>
</tr>
<tr>
<td>&lt; 150'</td>
<td>182</td>
<td>31.3</td>
<td>1.79</td>
</tr>
<tr>
<td><strong>Use of Tobacco</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>682</td>
<td>20.0</td>
<td>1.00</td>
</tr>
<tr>
<td>Yes</td>
<td>142</td>
<td>31.7</td>
<td>1.57</td>
</tr>
<tr>
<td><strong>Alcohol Use</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>415</td>
<td>17.1</td>
<td>1.00</td>
</tr>
<tr>
<td>Yes</td>
<td>409</td>
<td>27.1</td>
<td>1.58</td>
</tr>
<tr>
<td><strong>Drug Use</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>780</td>
<td>22.2</td>
<td>1.00</td>
</tr>
<tr>
<td>Yes</td>
<td>44</td>
<td>20.4</td>
<td>0.92</td>
</tr>
<tr>
<td><strong>Nutritional condition</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eutrophic</td>
<td>473</td>
<td>17.8</td>
<td>1.00</td>
</tr>
<tr>
<td>Risk/Undernourished</td>
<td>161</td>
<td>5.0</td>
<td>0.27</td>
</tr>
<tr>
<td>Overweight/Obese</td>
<td>147</td>
<td>55.1</td>
<td>3.10</td>
</tr>
<tr>
<td><strong>Sexual Maturation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage 1+2</td>
<td>26</td>
<td>26.9</td>
<td>1.00</td>
</tr>
<tr>
<td>Stage 3</td>
<td>110</td>
<td>12.7</td>
<td>0.47</td>
</tr>
<tr>
<td>Stage 4+5</td>
<td>645</td>
<td>23.6</td>
<td>0.87</td>
</tr>
<tr>
<td><strong>Sexual life beginning</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>613</td>
<td>24.5</td>
<td>1.00</td>
</tr>
<tr>
<td>Yes</td>
<td>210</td>
<td>15.2</td>
<td>0.62</td>
</tr>
<tr>
<td><strong>Suicide thoughts</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>678</td>
<td>19.5</td>
<td>1.00</td>
</tr>
<tr>
<td>Yes</td>
<td>138</td>
<td>34.8</td>
<td>1.78</td>
</tr>
<tr>
<td><strong>Feeling: sadness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>586</td>
<td>18.6</td>
<td>1.00</td>
</tr>
<tr>
<td>Yes</td>
<td>234</td>
<td>30.8</td>
<td>1.65</td>
</tr>
<tr>
<td><strong>Feeling: loneliness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>581</td>
<td>16.0</td>
<td>1.00</td>
</tr>
<tr>
<td>Yes</td>
<td>238</td>
<td>36.5</td>
<td>2.28</td>
</tr>
</tbody>
</table>

Note. The totals do not coincide with each other due to the lack of information in some cases. * Variables selected for the second stage of the regression. ** Variables selected for the third stage of the regression.
authors found significant differences between the genders, like another study24, which referred to increasing dissat-
isfaction directly proportional to the increase of age in fe-
males. In males, this trend decreases with the desire for a
more athletic torso and a search for weight gain.

It was found in this study that those adolescents
who self-reported as white were more concerned with
their body image than non-whites. In Gravataí, young peo-
ples who declared themselves as non-white also showed
less dissatisfaction than whites, but this difference was
not statistically significant.23 However, another study on
the same sample, investigating girls exclusively, found
that non-whites were significantly more satisfied with their
bodies. Similarly, studies of adolescent girls in Trinidad25
and South Africa26 found less dissatisfaction and fewer eat-
ing disorders among black and brown women compared
to white women. A study of South African mothers and
daughters27 comparing the association between body im-
age and BMI between ethnic groups (white, multi-ethnic
and black) showed ethnic and cultural differences in atti-
tudinal body image: both mother and daughter non-whites
proved less demanding in relation to body image. These
results may indicate different standards of beauty depend-
ing on the skin colour of individuals, with white people
demonstrating reduced satisfaction and greater demands
in terms of their body image.

Tobacco experience was also associated with the
outcome. Violation of dietary restriction, linking eating
disorders and tobacco use, can affect the behaviour of
individuals, especially women28. One study found that
women use tobacco as compensation behaviour, showing
dissatisfaction with their image and few healthy nutritional
practices. Fear of weight gain can be a major barrier to
stopping smoking29. This should be considered with wom-
en especially, because the possibility of weight gain can
demotivate them to stop smoking30. Depending on the de-
sign used in this study, it is not possible to know whether
those most dissatisfied with body image began smoking
as a result of this concern or if experience with tobacco
came first; however, it can be said that the most concerned
young people are also those who have used tobacco.

The prevalence of underweight was higher than
that of overweight/obesity. This is interesting and indi-
cates the time of the nutritional transition, given that the
north generally, as in other regions, shows a higher prev-
ance of overweight/obesity. The accelerated decline in
malnutrition of children and adults and the increased prev-
ance of overweight and obesity constitutes a nutritional
transition framework in many countries and also in Brazil,
due to changes in diet and lifestyle31.

In this study, young overweight/obese people were
nearly three times more concerned about their body im-
age and those of low weight were less concerned than
the eutrophic. These findings are consistent with studies
of Gravataí23 and Victory25, in which overweight children
were also more dissatisfied. This result makes sense in
our culture, because prejudice against the overweight or
obese can lead to greater dissatisfaction with body im-
age. However, it is interesting to note that five per cent
of low weight and 17.8 per cent of normal weight youths
also expressed dissatisfaction, indicating that this is only
partly explained by the social prejudice. Possibly perfect
body patterns internalized by the media have an effect on
self-image that is not consistent with a healthy nutritional
status.37 Dissatisfaction with body image, perfectionism,
high BMI, women and low self-esteem are factors associ-
ated with high rates of eating disorders found in a study of
adolescents between 12 and 1533.

There was no significant association between sexu-
al maturity and concern with body image. However, there
was a tendency that the most concerned were those young
people in an early stage of sexual development. It is possi-
ble that the small number of students in this category has
hampered the detection of a significant association. Most
young people find themselves in stages 4 and 5, which, for
boys, indicates slowing growth and development similar to
adults and, for girls, completion of sexual maturation and
great bodily changes. Unlike the present study, in Gravataí,
there was high prevalence of satisfaction among pre-pub-
tural and those in early puberty, suggesting that in the south
the young child was not as influenced by adult standards of
beauty23. The pubertal stage did not correlate with self-es-
tee or with perceptions related to the body, and BMI was
the only predictor of body dissatisfaction for adolescents
of both sexes34. Boys and girls, at the beginning of high
school, who considered themselves to be lagging behind in
sexual maturity were at risk of body dissatisfaction35.

As for the onset of sexual life, was no statistically
significant association in the multivariate analysis. How-
ever, a tendency was observed that those who had not
initiated a sexual life reported higher dissatisfaction with
their body image. Perhaps the lack of satisfaction with
their body was a contributing factor to the delay of sexual
initiation, because they felt their body image inconsistent
with that desired. A recent study of adolescent girls found
significant correlations between sexual activity, body im-
age and symptoms of depression. Moreover, body image
was a predictor of sexual activity36.

In terms of psychosocial characteristics, concern
about body image was higher among teenagers who re-
ported feelings of sadness and loneliness. Although the
presence of these feelings is quite common in adolescence,
it is possible that dissatisfaction with the body aggravates
feelings of worthlessness and low self-esteem. The in-
fluence of the media can become oppressive in suggesting
that a certain kind of beauty is associated with personal
success, affecting the quality of life and the health of ad-
olescents regarding the shape of their body. A study of 15
year olds and an accompanying measure held eight years
later measured self-esteem, life satisfaction, body image,
anxiety, depression and somatic complaints. Young people
had significantly better self-esteem than men aged 15–23
years. Women were more satisfied with their life than men
at 23 years, although these men had a better body image,
less anxiety, less depression and fewer somatic com-
plaints, regardless of age37.

■ CONCLUSIONS

In this study, female students showed greater dis-
satisfaction with body image, as did those who self-report-
ed as white and overweight/obese. Those who were underweight were more satisfied than the eutrophic. It is possible that dissatisfaction with body image makes young people more vulnerable to adolescent tobacco use and this discontent is expressed in the higher prevalence of feelings of sadness and loneliness. However, it is certain that a study of cross-sectional design does not allow identification of what is cause and what is consequence. In addition, the exclusion of young people outside the school environment limits the extrapolation of the results to the entire population of adolescents.

Despite these limitations, the results are important for the youth of northern Brazil, since there is little research on this topic in the region. The data serve as a warning to parents, educators and health professionals about the need to develop strategies to promote greater satisfaction and self-confidence in young people and hence greater satisfaction with body image.

At school, the discipline of physical education is closely linked with corporeality, providing opportunities to identify more students dissatisfied with their bodies, especially girls, non-white young and the overweight. It is in this space that they can be offered advice on healthier lifestyles and allied health services, with investment in the planning of actions aimed at promoting healthy environments to improve the quality of life of students. In this sense, it is essential that family support, along with educators, health professionals and the community, enhances the positive qualities of the young, encouraging physical activity and the adoption of habits promoting health holistically.

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Percepção da imagem corporal em escolares do norte do Brasil


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Resumo:

Introdução: Enquanto evidências sugerem que níveis de coordenação motora e de índice de massa corporal (IMC) estão negativamente correlacionados, pouco se sabe sobre a influência dos níveis de atividade física na associação entre essas variáveis em adolescentes.

Objetivo: Analisar as associações entre os níveis de coordenação motora e o IMC em adolescentes com peso saudável e com sobrepeso/obesos, controlando pelos níveis de atividade física.

Método: Cincuenta e seis escolares (50% adolescentes com sobrepeso/obesos), entre 12 e 14 anos, participaram do estudo. Os instrumentos Physical Activity Questionnaire for Older Children e o Köpkoordinationstest für Kinder foram usados para avaliar os níveis de atividade física e de coordenação motora, respectivamente. Correlações bivariadas e parciais foram usadas para analisar o interrelacionamento entre os níveis de coordenação motora, IMC e atividade física. O teste de Análise de Covariância foi utilizado para comparar os níveis de coordenação entre adolescentes com peso saudável e com sobrepeso/obesos, considerando o nível de atividade física como covariável.

Resultados: Foram encontradas correlações significativamente negativas (p < 0,05), de fraca a moderada, entre IMC e níveis de coordenação no grupo como um todo, nos grupos com peso saudável e com sobrepeso/obesos. No entanto, quando controladas pelos níveis de atividade física, não foram observadas correlações significativas no grupo com peso saudável. Ademais, adolescentes com sobrepeso/obesos apresentaram menores níveis de coordenação motora que adolescentes com peso saudável.

Conclusão: Os níveis de atividade física influenciam a associação entre os níveis de coordenação motora e IMC em adolescentes com peso saudável, mas não em adolescentes com sobrepeso/obesos.

Palavras-chave: adolescente, atividade motora, sobrepeso, obesidade.