Investigating the degree of body image satisfaction, self-perception and self-esteem of primary school students in Cyprus, during the course of Physical Education

Accepted 12th December, 2017

ABSTRACT

Body image dissatisfaction has become an issue of concern for the western cultures and is observed in both genders not only during adolescence but also in younger age (Harrison and Hefner, 2006). The aim of this study is to investigate the degree of body image satisfaction, self-perception and self-esteem of students aged 9 to 12 years during the course of Physical Education. 330 students participated from four primary schools in Limassol. The analysis of the results showed that the majority of students rank their body from “thin” to “towards mesomorph”, however, the desired body for most ranges between “very thin” to “thin”. No difference was observed between the two genders in relation to the degree of body image satisfaction. However, statistically important differences were recorded between satisfied and dissatisfied students in relation to their body image with regard to self-perception and self-esteem. In this study, the importance of athletic performance for body image satisfaction is highlighted. It is very possible that a student with high self-esteem will continue his involvement in sports in his post-academic life.

Keywords: Body image, satisfaction, primary school, physical education, self-perception, self-esteem.

INTRODUCTION

It is well known that one’s body image is of concern during their academic life, especially in adolescence (Cockburn and Clarke, 2002). Adolescents invest extensively on their appearance, adjusting it to the current standards so as to be loved and socially accepted by different groups of people (Gerner and Wilson, 2005). Students who do not meet the ‘appearance criteria’ set by society are usually isolated and more easily bullied verbally (Lieberman et al., 2001).

Defining body image

It is a fact that one’s body image is a notion that preoccupies everyone from time to time and has recently attracted research interest. This notion has been attributed various definitions. Most researchers agree that self-image is the way in which each person perceives himself (Makri-Botsari, 2001); this means the perceptions, thoughts, feelings and behaviours of a person towards his body (Grogran, 1999).

Therefore, the way one understands himself is considered a multidimensional and multifaceted structure, which consists of emotional, cognitive, perceptive and behavioural dimensions (Thompson et al., 1999). The emotional dimension of the body image is the reflection of emotions associated to the body shape and size (Grogran, 1999). This sector includes the negative emotions of stress, anxiety and depression as well as, the positive emotions of pride and comfort (Thompson et al., 1999).
The cognitive dimension refers to the unrealistic expectations a person may have for his body. A person may find his body image more attractive than the real physical condition and composition of his body (Grogan, 1999). The perceived body image is not always valid. For instance, many female adolescents consider themselves as over weighted despite the fact that they have a normal and healthy body weight (Cash et al., 2004). The perceived body image also refers to the way in which we think that other people see and judge our body image / appearance. Finally, the behavioural dimension refers to the actions a person makes so as to avoid his dissatisfaction with his own body (Thompson et al., 1999).

Cash (2002) argues that the body image is an ambiguous, mental representation of the shape and size of a body, which is influenced by various historical, political, social, biological and other independent factors. Thus, it is reasonable to think that the ideal body image changes from time to time and from one civilization to another (Burns, 1982). Consequently, the aforementioned factors play an important role in influencing the degree of one’s body image satisfaction. At the same time, as shown in Lerner’s research (1973), children develop a preference towards various body types from a young age. It is noted that body image satisfaction is lower during adolescence and therefore leads to negative consequences (Irwin and Tucker, 2006).

**Body image dissatisfaction and adolescence**

Body image disorder is often called as body image dissatisfaction and is defined as the negative thoughts and feelings a person has for his body (Grogan, 1999). A person may be dissatisfied with his body image for two hypothetical reasons: he either does not like specific physical features of his appearance, or he has an overall dissatisfaction with his overall appearance (Irwin and Tucker, 2006).

Usually, body image dissatisfaction takes place during adolescence. However, it is believed that boys at this age tend to be more satisfied with their bodies rather than girls (Lunde et al., 2007). Girls aged between 13 and 16 years have been found to have the highest levels of body image dissatisfaction (Grogan, 1999). The feeling of body image dissatisfaction among girls is a very common phenomenon (Irwin and Tucker, 2006; Lunde et al., 2007). On the contrary, boys at the age of adolescent development are more satisfied with their body. However, the absence of muscles may usually make boys dissatisfied with their body image (Lunde et al., 2007).

Body image dissatisfaction is one of the most important risk factors for various negative phenomena (Stice, 2002). The result of body image dissatisfaction can be low self-esteem, depression, as well as, problems related to the adolescent’s dietary habits (Irwin and Tucker, 2006; Rigby, 1997; Smolak, 2004). Girls who are dissatisfied with their body tend to believe that their weight is the reason for this dissatisfaction.

Adolescence for boys involves body changes such as sudden increase of height and muscles, as well as, other characteristics (Grogan, 1999). According to several studies, the maturity level of boys plays an important role in their perceived self-image. Boys with lower maturity levels were found to be more insecure about their body image than boys with higher maturity levels (Lunde et al., 2007).

**Self-image and gender**

There is no doubt that in our days, a stereotype for the perfect body image dominates- men having a muscular body and women being very thin. However, it is widely accepted that women are subject to greater pressure than men with regards to their body image.

Bordo (1993), a supporter of feminism, highlights that women feel subordination, passivity and dissatisfaction about their body. This could be due to the fact that society praises females with very thin body types resulting in women with normal weight to consider their body ugly or way far from the ideal body type (Mintz and Betz, 1986).

It is generally accepted that a positive correlation is observed between body image dissatisfaction and the female gender (Cash, 2002; Thompson et al., 1999). In fact, in a study conducted in 22 countries, it was found that women had a worse impression about their body even if their weight ranged at normal levels, whereas men felt satisfied with their body even if they were obese (Wardle et al., 2006).

In recent years, there has been an increase in researcher’s interest to study the percentage of men who are dissatisfied with their appearance, even though most studies focus on the problems that women face with their body (Gillet and White, 1992; Ricciardelli and McCabe, 2003). It is true that the majority of boys in adolescence wish to increase their weight or the size of their muscles, whereas others are on diet in order to lose some weight (McCreary and Sasse, 2002). In Garner’s (1997) study, he reported that 41% of the boys of the sample aged 13 to 19 years were dissatisfied with their overall appearance. This phenomenon (that is, the negative body image of the male gender) originates mainly from deceptive socio-cultural messages that project a well-formed, muscular and often unachievable male ‘ideal’ body type (McCabe et al., 2002). All this led many boys to implement exhaustive diets to lose weight and to over consume proteins to increase their muscular mass, as well as, strenuous physical exercise in order to burn fat around the abdominals (Ricciardelli and McCabe, 2003). Even more, in extreme situations, they may be led into taking protein dietary supplements, dietary products and even anabolic steroids in order for
them to achieve the 'ideal' body type (Cafr et al., 2005).

In conclusion, the negative body image is linked to a large extent with the distorted perception of the shape or size of the 'ideal' body (Smolak, 2004). Negative body image influences a person’s self-esteem, mood and social relationships (Cash et al., 2004). In addition, the body image plays a significant role for both genders during adolescence. Body image dissatisfaction, both in girls and boys, seems to be connected to negative consequences such as dietary disorders, low self-esteem, intense introversion and depression etc (Stice and Berman, 2001). In fact, as McCabe et al. (2002) argue, the strategies of weight loss and muscular strengthening increase the self-esteem of adolescents (boys and girls), whereas, the failure to meet the criteria set for the improvement of their appearance leads to lower self-esteem. Any consequences of body image dissatisfaction in adolescents may be a risk for the young people’s health.

**MATERIALS AND METHODS**

**Participants**

The participants of this specific study were 330 male and female students aged 9 to 12 years old, from four primary schools in Limassol. The students included in this study attended the 4th, 5th and 6th grade of primary school. This specific sample was chosen for this study for two main reasons. Many theorists argue that some of the most dynamic and permanent self-perceptions are formed during adolescence and they mostly depend on one’s experience from primary school (Markus, 1987). In addition, in a number of studies it is shown that the feeling of self-esteem in children is directly related to their academic experiences. Any other success a child may have in other non-academic – related subjects do not have the same impact on self-esteem as academic experiences (Epps and Smith, 1984).

**Measuring Instrument**

A questionnaire consisting of three parts was used to collect data. The first part was related to personal information of the students. The students were required to fill in information regarding their gender, class and age. In the second part of the questionnaire, Collins’ pictorial scale of body image assessment (1991) was used, which examines, through the choice between different figures, the degree of one’s boy satisfaction. This scale has been used again by Theodorakis (1999). The scale consists of seven different figures that represent a female and a male body of the same height, but different body shape in terms of weight. Each figure was numbered with one (1) representing the “very thin” body to seven (7) which represented the “very fat” body. Each student was requested to reply to three different questions by choosing one of the seven sketches that he considered appropriate for the reply. The questions were the following:

1) Which body-figure do you think represents your own body?
2) Which body-figure represents the body you would like to have?
3) Which body-figure represents the ideal body for you?

The participants who selected the same body figure in the questions related to perceived (question 1) and desired body shape (question 2) were ranked in the group of body satisfaction; the participants who selected a perceived body figure (question 1) that was one point away from the desired body figure (question 2) were ranked in the group of low body satisfaction, whereas the participants who considered that their body was two or more points away from the desired body figure were ranked in the group of body dissatisfaction.

The third part of the questionnaire consisted of one part of the HDIPM II (How Do I Perceive Myself; II) and examines the student’s self-perception and self-esteem. This questionnaire is the Greek version of the Self-Perception Profile for Children questionnaire by S. Harter, which was published after obtaining the exclusive approval from Suzan Harter (Botsari-Makri, 2001). This questionnaire consists of six scales, one of which includes self-esteem. The self-esteem sector assesses the degree to which a student is happy with himself and his life. The remaining five include specific self-perception sectors such as: 1) academic skills; 2) relationships with peers; 3) athletic performance; 4) physical appearance and 5) conduct-behaviour. However, for the purpose of this study only three out of the five specific sectors of self-perception were used. The questionnaire which was given to students included the following sectors: a) relationships with peers; b) athletic performance and c) physical appearance.

In addition, a separate scale for self-perception was included. The students had to reply to five questions for each sector, choosing a relevant answer from the two answers provided. Each of the two options that the students had to select from corresponded to a value that was later used to calculate self-perceptions. These values were scaled from one (1) to four (4), with (4) reflecting higher levels of self-perception. The average of the values for each of the specific sectors of the questionnaire is the corresponding degree of self-perception of the student in his life (Makri-Botsari, 2001).

**RESULTS**

**Body image scale**

With regards to body image, the students had the opportunity to select the figure which corresponds to their perceived body image, desired body image and the ideal
body image. With regards to the question “Which body-figure do you think represents your own body?” the majority of the answers ranged between ‘thin type’ of body by 34.5%, towards a ‘mesomorph type’ of body by 33%, whereas 4.8% considers it ‘very thin’ and 6% believed it is ‘fat.’ On the other hand, to the question “Which body-figure represents the body you would like to have?” the students’ desires ranged from very thin by 10.6% to ‘towards mesomorph’ type of body by 15.8%, whereas the majority of the sample by 41.5% wishes to have a ‘thin’ type of body and 32.10% wishes to have a ‘very thin’ body. Finally, to the question ‘Which body-figure represents the ideal body for you?’ 46.8% of the students selected the ‘thin’ type of body, 25.2% ‘very thin’ body and 21.6%, ‘towards mesomorph’ type of body.

The mean values from the responses of the sample regarding the perceived, desired and ideal body shape were calculated. As earlier mentioned, each child was to choose a relevant body figure out of 7, which corresponded to the answer they wanted to give for each question. The figures were ranked from (1) to (7). Using these values, the mean values for perceived, desired and ideal body shape were 3.28 (S.D. 1.03), 2.95 (0.96) and 2.62 (S.D. 0.87) respectively. Moreover, for the evaluation of body satisfaction, the sample was categorized in groups of body satisfaction, low body satisfaction and body dissatisfaction in relation to their perceived body image and the desired body image. In relation to their body satisfaction, the results of the sample were as follows: 34.8% satisfied, 47.9% slightly satisfied and 17.3% dissatisfied (Table 1).

Body image satisfaction was also calculated between different classes that were used for this study. The highest percentage of students who were slightly satisfied with their body image was observed in the fifth grade (50.4%). High body satisfaction was observed to be the highest for 6th grade students (38.6%), followed by the fourth grade (35.5%) and eventually the fifth grade (31.1%) (Table 2).

The t-test analysis for the independent samples did not show any statistically significant difference between genders regarding the degree of body satisfaction. In addition, the analysis of variance (One-Way Anova) did not show statistically significant differences between the different classes with regards to the degree of their body image satisfaction. However, statistically significant differences were observed in the scales of the HDIPM II questionnaire: a) regarding the factor of physical appearance (HDIPM II scale), the group of satisfied students ($X^1$) presented higher levels of self-perception than the group of dissatisfied children ($X^3$) $F_{(2,327)}=26.088$, $p<0.05$ $x_1^2=3.16$, $x_2^2=3$, $x_3^2=2.50$; b) regarding the factor of relationships with peers, the group of satisfied students presented a statistically significant difference compared to the group of non-satisfied students $F_{(2,327)}=3.295$, $p<0.05$ $x_1^2=2.98$, $x_2^2=2.89$, $x_3^2=2.77$; c) regarding the factor of athletic performance, the group of satisfied students presented higher values than the group of non-satisfied students $F_{(2,327)}=5.281$, $p<0.05$ $x_1^2=2.98$, $x_2^2=2.81$, $x_3^2=2.66

Table 1: Body satisfaction by sex.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Satisfied</td>
<td>58</td>
<td>38.7%</td>
<td>57</td>
</tr>
<tr>
<td>Slightly satisfied</td>
<td>72</td>
<td>48%</td>
<td>86</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>20</td>
<td>13.3%</td>
<td>37</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100%</td>
<td>180</td>
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</tbody>
</table>

Table 2: Body satisfaction by class.

<table>
<thead>
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<th>Variable</th>
<th>Factor</th>
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<th>Slightly satisfied</th>
<th>Dissatisfied</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>4th Class</td>
<td>N</td>
<td>39</td>
<td>35.5%</td>
<td>48</td>
<td>43.6%</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>39</td>
<td>35.5%</td>
<td>48</td>
<td>43.6%</td>
</tr>
<tr>
<td>5th Class</td>
<td>N</td>
<td>37</td>
<td>31.1%</td>
<td>60</td>
<td>50.4%</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>37</td>
<td>31.1%</td>
<td>60</td>
<td>50.4%</td>
</tr>
<tr>
<td>6th Class</td>
<td>N</td>
<td>39</td>
<td>38.6%</td>
<td>50</td>
<td>49.5%</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>39</td>
<td>38.6%</td>
<td>50</td>
<td>49.5%</td>
</tr>
<tr>
<td>Total</td>
<td>N</td>
<td>115</td>
<td>34.8%</td>
<td>158</td>
<td>47.9%</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>115</td>
<td>34.8%</td>
<td>158</td>
<td>47.9%</td>
</tr>
</tbody>
</table>
and d) regarding the factor of self-esteem, the group of students with body image satisfaction presented higher levels of self-esteem than the group of students who were not satisfied with their body image $F_{(2,327)}=26.088, p<0.001$ $x^2=3.16, x^2=3, x^2=2.50$.

**HDIPM II scales**

As earlier mentioned, four scales were used in this study to measure self-perception. The mean averages for the four scales are as follows: a) 2.91 (S.D. 0.56) for the relationship with their peers; b) 2.85 (S.D. 0.65), for athletic performance; c) 2.97 (S.D. 0.61) for physical appearance and d) 3.09 (S.D. 0.49) for self-esteem.

Results from these scales were also taken to calculate the average and standard deviations of self-perceptions of students per gender. With regards to gender, both boys and girls presented a similar degree of self-perception in regards to relationships with peers, having an average of 2.87 (S.D. 0.55) for boys and 2.85 (S.D. 0.54) for girls. In the scale of athletic performance, boys presented a higher performance (Average: 2.93, S.D. 0.64) than girls (Average: 2.78, S.D. 0.65). In addition, regarding the physical appearance the following averages were drawn: 3.02 (S.D. 0.58) and 2.93 (S.D. 0.63) for boys and girls respectively. As for the scale used to calculate self-esteem, 3.05 (S.D. 0.55) was calculated for boys and 3.13 (S.D. 0.45) for girls.

The averages and standard deviations for each class independently were also calculated using the data from the same four scales. Regarding the relationships with peers the following averages were calculated: 2.84 (S.D. 0.51) for the 4th grade, 2.98 (S.D. 0.53) for the fifth grade and 2.90 (S.D. 0.63) for the sixth grade. With regards to athletic performance, the following averages and standard deviations were calculated: fourth grade average of 2.83 (S.D. 0.63), fifth grade average of 2.80 (S.D. 0.64) and the sixth grade average of 2.85 (S.D. 0.65).

Higher averages were observed in the scale used to measure physical appearance. The fourth grade had an average of 3.02 (S.D. 0.58), the fifth grade 2.92 (S.D. 0.60) and the sixth grade 2.99 (S.D. 0.66) (Table 4). Finally, the sixth grade seems to have a higher degree of self-esteem (Average: 3.20, S.D. 0.46) followed by the fifth (Average: 3.11, S.D. 0.48) and the fourth grade (Average: 2.98, S.D. 0.52).

The t-test analysis did not show any statistically significant differences between gender and the three scales of self-perception (relationships with peers, athletic performance and physical appearance) as well as self-esteem. From the analysis of variance (One-Way Anova) statistically significant differences were presented between the factor of age and self-esteem, especially among ten and eleven-year old children $F_{(2,327)}=3.579, p<0.05$ $x^2=3, x^2=3.08, x^2=3.21, x=2.98$. In addition, statistically significant differences were observed between the 4th and 6th grade in relation to self-esteem $F_{(2,327)}=5.722, p<0.005$ $x^2=2.97, x^2=3.10, x^2=3.20$. On the contrary, no statistically significant differences were found between the remaining three scales of self-perception and age.

**DISCUSSION**

**The degree of body image satisfaction**

On a global level, the ideal body type corresponds to a thin body. Young people, mainly young women, pay special attention to their weight and the degree of their body image satisfaction is significantly affected (Forbes et al., 2004). The tendency for achieving the ideal body shape is
not an obsession only for the female population, but also for adult men and young boys (Pope et al., 2000).

The results drawn from this study showed that the male and female students of the sample perceive the ideal as well as the desired body to be thinner than their actual body. The majority of the sample ranked their perceived body from “thin” to “towards mesomorph”. However, for most people the desired body is “very thin” to “thin”. This means that the sample as a whole expressed a desire to be thinner than the ideal body shape that exists in common. The difference between the desired and the perceived actual body is important because it determines one’s body image satisfaction. This conclusion is confirmed by findings of previous studies (Theodorakis, 1999; Mpenetou, 2008).

Therefore, these results confirm and strengthen the opinion that body image satisfaction decreases during school years (Irwin and Tucker, 2006). Thus, the fact that children are not satisfied with their overall body image may be due to the projection of an unrealistic ‘ideal’ body type in our modern society (Harrison and Hefner, 2006).

Gender differences with regards to the degree of body satisfaction

There was an initial hypothesis that boys are more satisfied with their body than girls. However, this hypothesis was not confirmed in this study as no statistically significant differences were found between the genders in relation to the degree of body satisfaction. This result comes in contrast with results of other studies, in which boys seem to be more satisfied with their weight and appearance than girls (Bordo, 1993; Cash, 2002; Thompson et al., 1999). In particular, a study by Neumark-Sztainer et al. (2004) showed that 50.5% of boys were satisfied with their body, against 31.2% of girls. In addition, a study by Paxton et al. (1991) showed that the degree of body image dissatisfaction was significantly higher in girls than in boys. Thus, it is evident from numerous studies that body image satisfaction differs between boys and girls. Girls tend to have thinner ideal body types, thus, presenting lower degrees of satisfaction as compared to boys. This happens because girls are exposed to socially determined beauty standards from very early years and always try to improve their body image (Bordo, 1993).

However, the male gender expresses low levels of body satisfaction as well. The percentage of men who are dissatisfied with their appearance increases constantly year by year (Gillet and White, 1992; Ricciardelli and McCabe, 2003). Boys of younger age are also observed to be dissatisfied with their body image. This can be attributed to the stereotype that dominates in our days, of handsome men being muscular (Pope et al., 2000; Furnham and Calnan, 1998).

Body image, self-perception and self-esteem

One’s opinion regarding his body image plays an important role in the development of his self-esteem and self-perception. This opinion is mainly developed during childhood and adolescence. Many adolescents worry about their body weight and try through exhausting means to achieve the “ideal” body type which is promoted through society and the media.

This study confirmed the hypothesis that students with body satisfaction are differentiated in a statistically significant way from students with low body image satisfaction or body image dissatisfaction. Specifically, important differences between students with body satisfaction and body dissatisfaction were found in the self-perception scales (physical appearance, relationships with peers and athletic performance) and the scale of self-esteem. These findings are also confirmed by various studies which mention that while body dissatisfaction increases, self-esteem and self-perception decreases (Hausenblas and Fallon, 2001; Konstanski and Gullone, 1998). A significant correlation between self-perception and body image was found in sixth grade primary school students in a study by Folk et al. (1993), while in a different study, it was observed that self-perception and the students’ opinions towards their body image were positively correlated (Austin et al., 1989). In addition, from a study by Fisher et al. (1991), strong correlations between the distorted body image and low self-esteem were observed.

Body image, athletic performance and bullying in Physical Education

It would not be acceptable for such a study to ignore the effect of exercise on body image. As earlier mentioned, statistically significant differences were found between satisfied and dissatisfied students in relation to their perceptions about their athletic performance. This finding is also confirmed by studies that show a strong relation between exercise and body image satisfaction (Robinson, 2003), whereas, it has been widely argued that athletes have a more positive body image compared to non-athletes (Hausenblas and Fallon, 2006). Therefore, it can be said that exercise helps to increase one’s body image satisfaction (Depck and Williams, 2004). Active athletes, or people actively involved in sports have a positive opinion about their body image and believe that they are constantly improving it. Thus, one could say that students who have high body satisfaction are very likely to continue exercising. People who are satisfied with their body image are more likely to focus on learning athletic skills instead of being preoccupied with their appearance (Martin and Lichtenberger, 2002).

Students, who feel that they do not possess the relevant
skills needed to complete activities during the course of Physical Education are more vulnerable to bullying from their classmates and feel left out (Luke and Sinclair, 100; Hills, 2007). According to Hills (2007), bad performance in Physical Education often leads to negative “public criticism” which usually has the form of mockery and teasing. The lesson of Physical Education is one of the lessons in which students communicate and socialize in order to perform one activity and enjoy a relevant game. If a student knows that he is good in an activity, then it is very likely that he feels better towards the course and enjoys it. On the contrary, students who do not succeed in an activity are less likely to perceive the course as enjoyable (Humbert et al., 2006).

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