

BODY IMAGE APPEARANCES IN ADOLESCENTS SCHOOLCHILDREN

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Abstract

The key objective of this research was to analyse and understand the effects of gender and age on body image appearance at age 12 and 15 in both gender groups. In other words, the study examines how age and gender influence adolescents' body image appearance. The sample chosen for this study included 1429 schoolchildren (710 boys and 719 girls) from primary and secondary in Tehran. The Body Image Concern Inventory (BICI) was used. The differences between body image appearances of boys and girls between at the ages of 12 and 15 were analysed and compared using the ANOVA test. The ranking of the four group samples was achieved by using mean of body image appearance. Data analysis indicated significant effects of age, gender and other interactions of the variables on body image on boys and girls at the ages of 12 and 15. The result reveals that in the same age category, boys were at a better level of body image appearance than girls. Also, the result revealed that the body image appearance level was better in the younger age category.

Keywords: Adolescents, age, body image appearance & gender.

Introduction

Body image pertains to how individuals come across their own embodiment, particularly, but not absolutely, their physical appearance (Cash, 2011). From an expansive perspective, body image also constitutes experiences related to one's biological integrity and physical functional competencies (e.g., health, fitness, athletic skills, and coordination). (1) Perceptions of facets of their appearance (e.g., mental representations of their own size, shape, and facial characteristics) and (2) attitudes regarding their appearance (Cash, 2011). As mentioned by several researchers (Grogan, 2016), the perceptual definition of body image is connected to the extent to which a person is accurately able to assess his or her appearance on the basis of certain physical dimensions. Investigators and researchers have established methods and designed instruments to evaluate an individuals' extent of body size distortion, either based on perceptions of distinct areas of the body or of the entire body. These assessment methods include a range of aspects, from simple figural stimuli (e.g., silhouettes) to more intricate computerised technologies that enable individuals to adjust digital images of their own bodies in line with their perceptions (Cash, 2011).

Body image can be theorised as a multidimensional concept which signifies how people "think, feel, and behave with respect to their own physical traits" (Muth & Cash, 1997). One of the noteworthy risk factors that can lead to the onset of depression or eating pathology is body image dissatisfaction (Lawler & Nixon, 2011). Therefore, understanding the predictors of negative body image is an important focus of the investigation. Adolescents engage in appearance-related discussions with peers, referred to as "appearance training", through everyday conversations that are based on looks, attractiveness, and image (Ata, Ludden, & Lally, 2007). These appearance-related conversations create an environment in which looks and image concerns are emphasised, construed, and consequently come to be valued. The kind of attention and time that are bestowed on body image issues further underlines the importance of appearance (McCabe & Ricciardelli, 2001). Body image is a key attribute with regards to the formation and adoption of appearance norms and ideals among adolescents (Carlson Jones, 2004). The appearance-based conversations amongst peers may be especially impactful in the development of body image appearance due to the vast amount of time adolescents spend with same-gender peers (Berndt & Keefe, 1995). There is a significantly high value associated with such friendships and hence the friends play a key role in determining and developing an adolescent's social perspectives (Shroff & Thompson, 2006; Berndt & Keefe, 1995).

A structural equation model which assessed the tripartite model (peer, parental, and media aspects) simulated earlier observations made by Keery and colleagues (2004). A second model then took these observations further, indicating that the influences of media and peers are more significant compared to parental influences. The results are elaborated to address the need for the development of prevention programs and intervention strategies that can incorporate formative influences and offer mediational support. In the recent past, several adolescents have expressed concerns regarding their body image appearance and this issue has compounded considerably. This might lead to erectile dysfunction (ED) (Camacho Minano, Fernandez Garcia, & Rodriguez Galiano, 2006). Body image misrepresentation is more common among women compared to men (Carlson Jones, 2004;

Davison & McCabe, 2006; Miranda, Conti, Carvalho, Bastos, & Ferreira, 2014), and therefore they are more impacted by social stereotypes such as ideal bodies, thin bodies, skin tone, and so on (Groesz et al., 2002), which might drive several eating disorders at an earlier time of life (Bener & Tewfik, 2006).

Meier & Gray (2014), in a study on 103 middle and high school girls, indicated that the adolescent girls that use Facebook have elevated appearance exposure. Overall Facebook usage had a major correlation with thin-ideal internalisation, drive for thinness, weight dissatisfaction, and self-objectification. In their study, Lawler, & Nixon (2011) used a sample size of 239 adolescents. 54% were girls and 46% were boys, with a mean age of 16 years. A questionnaire was used to enable the girls and boys to self-report on body dissatisfaction (BD). The questionnaire takes into consideration various aspects which are significant predictors of body dissatisfaction, such as appearance conversations with friends, BMI, peer criticism for appearance, and internalised appearance ideals. The impact of body mass on body dissatisfaction was moderated by gender. The relationship between peer appearance conversations and criticism and body dissatisfaction was mediated by internalisation. These results imply that body mass applies a differential risk for body dissatisfaction among boys and girls, while internalisation indicates a significant psychological progression that underpins body dissatisfaction for both genders.

Social networking portals are omnipresent among adolescents. 70% of European adolescents in the age group of 14 to 17 use social networking websites and 40% of these users spend more than 2 hours daily on these websites (Tsitsika et al., 2014). We currently do not know much regarding the impact of social networking sites on body image. Two correlational studies have indicated that adolescent girls (aged 13–18 and 13–15) who were more active on social networking websites were more disgruntled with their bodies) Tiggemann & Miller, 2010; Tiggemann & Slater, 2013).

Studies on adolescents falling in the age group of 10 to 15 years old have backed the conception that the body dissatisfaction of adolescents is influenced by parents, media, and peers (Shroff & Thompson, 2006; Stanford & McCabe, 2005). This corresponds with the estimations of the tripartite influence model (Thompson et al., 1999). The studies that analysed the impact of media, such as magazines and TV, have characteristically emphasised on the influence that exposure to highly idealised images of physical activity people and appearance-focused content have on body dissatisfaction (Barlett et al., 2008) for males and (Groesz et al., 2002) for females. However, not many research works in the domain of body image have focused on the evolving media landscape and the upsurge of internet-based media like social networks) Meier & Gray, 2014; Tiggemann & Miller, 2010; Tiggemann & Slater, 2017). Gender did not affect the observations. Thus, social networking platforms can play a hostile role in the body image of both adolescent boys and girls (De Vries et al., 2016).

One of the important issues in engaging in the realization of attention to gender is the many changes at this age in children's body. Normally, everybody has a connection with own body image which is in balance; any change of this old image causes discomfort, mental imbalance and negative body image.

Negative body image has an association with poor self-esteem (Davison & McCabe, 2006; Franzoi & Shields, 1984), depression (Noles, Cash & Winstead, 1985), disordered eating (Boyes, Fletcher, & Latner, 2007), and mental imbalance (Bahram, Shafieezadeh, & Sanatkaran, 2002). Therefore, it is important to understand which factors have an effect on a high level of body image in adolescents to help them to live a healthy and prosperous life.

Method

This research was a cross-sectional study. Data collection from adolescents were selected from eight zones, 32 primary and secondary school for girls and boys from Tehran. A total of 1429 students (719 girls and 710 boys) at ages 12 and 15 years old using the cluster random method. The objective of this study was to compare body image appearance in adolescents using the Body Image Concern Inventory (BICI) questionnaire to assess students' body image appearance statuses. The aim was to identify whether there are any differences in body image appearance between four groups at age 12 and 15 in both genders.

Statistical Analysis

Data analyse used SPSS₂₀ software. Descriptive data used and mean and standard deviation. We also applied Kolmogorof-Smirnoff Normality test for all data. Two way ANOVA was applied to identify different body image in groups. This study used mean of body image appearance to rank the groups.

Findings

To compare body image appearance based on mean value in each of these groups, descriptive statistics on body image appearance for each group were found as shown in table 1.

Table 1: Descriptive Statistic on Body Image Appearance for each group

Gender	Age	N	Mean	Std. Deviation
12 years	Girls	344	22	3.099
	Boys	346	18.66	3.322
15 years	Girls	375	24.53	3.572
	Boys	364	23.1	3.995

To determine the effects of age and gender on body image in the four groups, the ANOVA test was employed. The significance level was ($P = 0.001$) which is less than 0.05, at a specific confidence level of 95%. The results are revealed in Table 2.

Table 2: ANOVA the effect of age and gender on body image Appearance

Tests of Between-Subjects Effects						
Dependent Variable: Body Image Factor 1						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	6663.444 ^a	3	2221.148	179.176	.001	.274
Intercept	695373.864	1	695373.864	56094.579	.001	.975
Gender	2026.973	1	2026.973	163.512	.001	.103
Ag	4326.869	1	4326.869	349.041	.001	.197
Gender * Ag	323.189	1	323.189	26.071	.001	.018
Error	17664.947	1425	12.396			
Total	724571.000	1429				
Corrected Total	24328.390	1428				

The results revealed that there exists a significant effect of age and gender and also interaction of these variables on body image appearance. In other words, according to the obtained significance level from Two Way ANOVA test at the confidence level of 95% and ($P = 0.001$), it can be concluded that the age and gender and also interaction of these variables effect on body image appearance in these groups and also interaction effect also significantly affected on body image appearance, per Table 2.

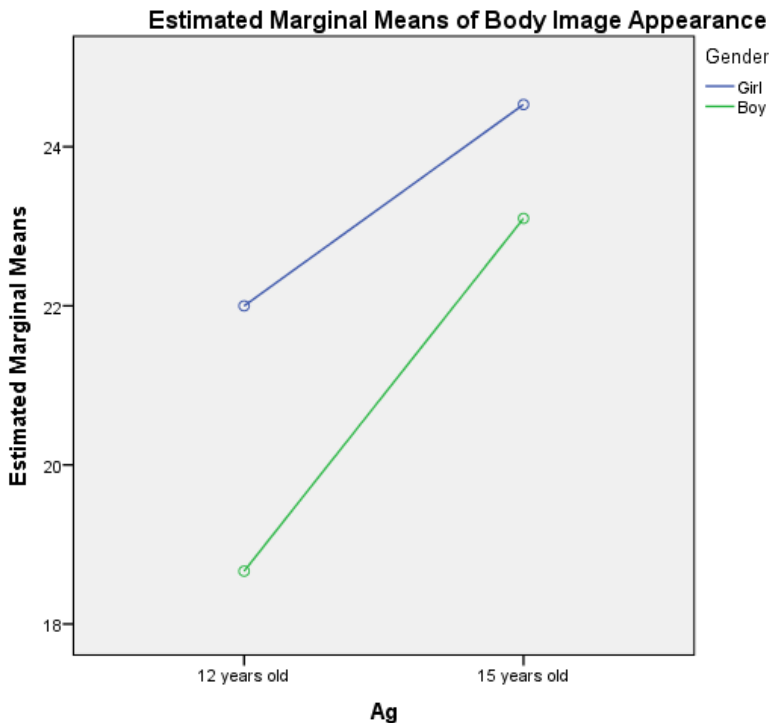


Figure 1: Significant interaction between age and gender in Body Image Appearance

Figure 1 shows significant interaction between age and gender on body image appearance. The adjusted R-Square 0.253 and R-square values in this model accounted for 27.4% of the variable variance in body image of all subjects (Table 3).

Table 3: Summary of the regression model and R square for whole samples

Model	R	R square	Adjusted R square
Total	0.274	0.272	0.253

Comparison Between the Four Groups' Body Images

For more precise investigation and ranking of the groups based on body image, appearance mean values were applied. The mean of body image appearance ta significance of the difference between the groups and ranks them. When the score of body image appearance increases, the level of body image appearance decreases. The table below shows the results of ranking body image appearance.

Table 4: Mean of Body Image Appearance mean ranked groups

Group	N	1	2	3	4
12 years old Boys	346	18.67			
12 years old Girls	344		22.00		
15 years old Boys	364			23.10	
15 years old Girls	375				24.53

The results indicated that the highest mean score of body image appearance was for 15 years old girls. 15 years old boys received the second rank, while the 12 years old girls and boys attained the third and fourth rank, respectively. In other word girls, 15 were in the lowest level of body image appearance. It shows age could effect on body image appearance. Hence, 12 years old were at a higher level than 15 year olds in both genders. Gender could affect body image appearance.

Does Age or Gender Have a Greater Effect on Body Image?

To identify the strengths of each variable on body image, the degree of freedom was 3. The strength of age was 19.7% Age more significantly affected body image than gender, and interaction effect is the lowest effect on body image in all groups (Table 5).

Table 5: Summary of the strength of each variable effect on body image

Variable	Seq SS	Percentage
Age	4326.869	17.7
Gender	2026.973	8.3
Gender * Ag	323.189	1.2

Comparison Between the Four Group Body Image Variances

One of the assumptions was the equality of the variances of the groups under consideration.

The assumption itself is investigated using the so-called Levene's test. Based on the significance levels obtained from the Leven's test which were less than 0.05, one can conclude at a 95% confidence level that the corresponding variances of the four groups aren't equal at any comparison. F value for body image was 8.252 and significant 0.001, the meaning is variances were significantly different.

Table 6: Statistics for Body Image Appearance in four groups

Test of Homogeneity of Variables			
Body Image Appearance			
F-Value	df1	Df2	Sig.
5.624	3	1425	0.001

Discussion

Many studies have indicated that different variables can affect body image appearances such as socioeconomic, peers, parents, environmental, culture, age and gender. We investigate and understand the variables which affected body image, considering that body image may play an important role in adolescents' healthy lives. Children are not satisfied with their body image. and many research results have demonstrated that they cause many physiological and psychological problems among adolescents, resulting in an unhealthy generation (O'Dea & Caputi 2001).

Lai and colleagues (2013) studied on 909 adolescents (mean age = 14.7 years, 55.3% boys) in Hong Kong who completed a survey for boy image including the Figure Rating Scale and body mass index (BMI). The result indicated that they were significantly dissatisfied with their body image appearance, especially girls. Also, the results showed that sociocultural influences significantly affect body image.

Nixon & Lawler (2011) conducted research on 239 adolescents (46% boy and 54% girl) to identify the relationship between appearance and body mass and peers of ideal appearance. Analysis result stated that body dissatisfaction can be predicted by peers and body mass. Gender was a moderate relationship with body dissatisfaction. These result indicated that weight issue makes adolescents dissatisfaction of body image in boys and girls, but internalisation is an important key psychological process which underpins dissatisfaction of body image among adolescent boys and girls.

In Qatar, gender has an important role in terms of opportunities for physical activity among adolescents. They are in the highest level of inactive in physical activity amongst their age in the world. In a cross-sectional study, Saller (2019) examined 1157 Qatar adolescents between, 13 and 20 in a national survey for physical activity and satisfaction of body image among boys and girls. The result highlighted that significantly boys were at a higher level than girls. Furthermore, the result noted that girls were at the lowest level of satisfaction of self-efficacy and body satisfaction. The results indicated that girls were at the highest level of psychological distress. The researchers reported a positive significant relationship between everyday physical activities and psychosocial constructs (Saller et al., 2019).

In a study by Ata and colleagues (2007) on 177 adolescents, boys and girls examined the relationship between body image appearance and gender, self-esteem, pursue result of analysis demonstrated that girl was in higher psychosocial risk than the boy. Furthermore, a girl with low self-esteem and more pressure to be thine were a negative relationship with body image level. Boys' high-risk attitudes significantly had a relationship with not good parents' support and more pressure to be muscular. In a study for eighteen months, Vries and colleagues (2016) on 604 Dutch adolescents aged 11–18 (50.7 % girl which 97.7 % were native Dutch) investigate the relationship between body image appearance and gender. The result revealed that the social network sites can predict body dissatisfaction. Gender could not moderate the results. Network sites can have a negative effect on the body image of adolescents on both genders. (De Vries et al., 2016).

Meier & Gray (2014) in a study on 103 middle and high school females reported that the adolescents' girl that use of Facebook Elevated appearance exposure, but not overall Facebook usage, was significantly correlated with body image dissatisfaction, drive for thinness, thin-ideal internalization, and self-objectification. Tiggemann & Slater (2013) in a study on 1,087 selected adolescent age 13-15 years high school to complete the survey of the consumption of internet and body image concern. Most adolescent girl (95.9%) had internet access in the home. the time spending on Facebook significantly relationship with the ideal thin body. Furthermore, 75% of girls about 90 minutes daily spent on their profile. The result highlighted that Facebook user was more concern about their body image than non-users.

Tiggemann & Slater (2017) use of 483 adolescents 13-15 years old subject to identify the relationship between body image concern and Facebook. The result highlighted that the use of Facebook was more concern about their body image and increased the level of dissatisfaction and likely to be thinner than the girls not used. In a cross-sectional study on 1112 student from six German high school grad 7 to 9 (mean age 13.38). They find out that girls were more under peer pressure than boys for body image appearance. in addition, the result revealed that this pressure on children increases by age. In other words, from early adolescence age indirect pressure increase to middle age of adolescence (Helfert & Warschburger, 2017).

In a longitudinal study on started with 202 adolescents at age 10 and the second study was applied when the adolescent was at age 14 years old. Adolescents at age 14 years old were less satisfied with their appearance compared to children at age 10 years old (Barker & Bornstein 2010). The result of the following studies Lai 2013, Lawler & Nixon (2011), Saller (2019), Ata (2007), De Vries and colleagues (2016), Meier & Gray (2014), Tiggemann & Slater (2013), Tiggemann & Salter (2017) and Helfert & Warschburger (2017) same as this study result that showed gender has effect on body image appearance on girl compare to boys.

Conclusions

Body image disturbance has been known as a diagnostic feature of some psychopathological conditions (Tremblay & Limbos, 2009). Body image concerns appear

at a very young age for children about 5 years old, and are counted as an important risk factor for the development of psychopathology (Dittmar, Halliwell, & Ive, 2006). Body changes in girls and boys have a strong and negative effect on body image (McCabe & Ricciardelli, 2001).

Body image at different ages between 5-8 years old indicates that at this age, elder children are more concerned about body image than younger (Dittmar, Halliwell, & Ive, 2006) (PsycINFO Database Record (c) 2019 APA, all rights reserved)

Overall, the result of this study demonstrated that for both boys and girls, body image appearance is affected by age. Significant differences between boys and girls at age 12 and 15 years in terms of body image appearance.

These findings of Helfert & Warschburger (2017) and Barker (2010), indicated that there is a strong effect of age on body image appearance, supporting the findings of this study. It is important to note that in this study, the younger subjects were at a better level of body image appearance, which shows the effect of age on body image appearance.

As there are now over 20 million young people and teens living in the country, they are the driving force and dynamics of society. This society has to have healthy people. In the meantime, identifying the relevant and effective factors on adolescents' body image appearance as a risk factor can help them to skip dangerous factors.

This study also showed that adolescents are not happy with the appearance of their bodies. It may better for policymakers to pay more attention to adolescents and to make decisions for teens to improve the satisfaction of the body image. Thus, the transition from adolescence will be with a better physical and mental health and the next generation will have a healthy future.

Recommendation

In this critical age, it is very important to consider the way children have grown up. Future research should consider other age groups, and be conducted in different cities, and urban and rural areas. This may help policymakers use the research results to make better decisions for the next generation.

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