

2019-03

# Body Image Differences Across the Life Span of Greek-Cypriot Women: An Investigation Examining Adolescence, Early and Middle Adulthood

Mousoulidou, Marilena

The European Journal of Counselling Psychology

---

<http://hdl.handle.net/11728/11740>

*Downloaded from HEPHAESTUS Repository, Neapolis University institutional repository*

# Body Image Differences Across the Life Span of Greek-Cypriot Women: An Investigation Examining Adolescence, Early and Middle Adulthood

Marilena Mousoulidou\*<sup>a</sup>, Marios Argyrides<sup>a</sup>, Charis Ioannou<sup>a</sup>

[a] Neapolis University Pafos, Paphos, Cyprus.

## Abstract

The current study aimed to examine possible differences among females in three age groups (adolescent, early and middle adulthood) on body-image-related variables, media influences and self-esteem. The relationships between these variables across the different age-groups were also examined as well as significant predictors of appearance satisfaction. The sample consisted of 458 females (155 adolescent girls, 218 women in early adulthood and 95 women in middle adulthood) who responded to the measures of interest. Results indicated significant differences among the age groups on self-esteem, appearance satisfaction and investment in appearance, weight-related anxiety, internalization of the thin ideal and the perception of the media as a good source of information concerning beauty. There were also many similarities within the relationships of the variables across all age groups, whereas there were some differences as well. Results also indicated some common trends with regards to predictors of appearance satisfaction across the three age groups. The results of the current research offer important additional information concerning body image disturbances in Cyprus. This information can be used by Greek-Cypriot mental health professionals and researchers in developing prevention interventions in Cyprus, as well as other Mediterranean regions.

**Keywords:** life span development, body image, self-esteem, appearance investment, media, Cyprus

The European Journal of Counselling Psychology, 2019, Vol. 8(1), 43–63, <https://doi.org/10.5964/ejcop.v8i1.178>

Received: 2018-03-29. Accepted: 2019-03-01. Published (VoR): 2020-01-13.

Handling Editor: Marios Argyrides, Neapolis University Pafos, Paphos, Cyprus

\*Corresponding author at: 2 Danaes Av., 8042, Pafos, Cyprus. E-mail: [marilena.mousoulidou@nup.ac.cy](mailto:marilena.mousoulidou@nup.ac.cy)



This is an open access article distributed under the terms of the Creative Commons Attribution 4.0 International License, CC BY 4.0 (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Several studies have demonstrated that body dissatisfaction is one of the most important predictors of disordered eating (such as continuous strict diets, bulimia symptoms, dietary constraints), as well as eating disorders (Ackard, Croll, & Kearney-Cooke, 2002; Argyrides & Kkeli, 2015; Bucchianeri, Arikian, Hannan, Eisenberg, & Neumark-Sztainer, 2013; Neumark-Sztainer, Paxton, Hannan, Haines, & Story, 2006; Thompson & Stice, 2001). Body dissatisfaction has also been linked to low self-esteem, emotional distress, depressive symptoms, weight preoccupation, obsession with external appearance and in rarer cases, even led to unnecessary plastic surgeries (Byely, Archibald, Graber, & Brooks-Gunn, 2000; Cash & Pruzinsky, 2002; Freedman, 1984; Stice & Bearman, 2001). The standards of Western society concerning the ideal body as well as the information provided by the media concerning beauty, emphasize ideals of body shape and weight that are impossible for most women and men to achieve (Tiggemann, 2004; Wiseman, Gray, Mosimann, & Ahrens, 1992). This leads individuals to feel responsible for their body weight and shape, since body weight is viewed as something one can easily control (Tiggemann, 2004; Tiggemann & Rothblum, 1997). Furthermore, research examining body dissatisfaction in women of all ages suggests that the dissatisfaction remains quite stable across the adult life span (Grogan, 1999; Tiggemann, 2004; Tiggemann & Lynch, 2001; Stevens & Tiggemann, 1998). Tiggemann's

(2004) review of the empirical research on body image of adults older than university age supported that body dissatisfaction in women remained remarkably stable across their adult life span.

As individuals grow older, a lot of physical changes take place. Starting with adolescence, the body shape of boys and girls begins to differ. Boys tend to gain twice as much muscle tissue than girls, while girls gain more fatty tissue than boys; as a result, girls tend to have more rounded body shape than boys (Rathus, 2017). Research on adolescent body image has shown that girls generally dislike the period of puberty, mainly because during that period their body shape changes and becomes different than the thin ideal portrayed in society (Bucchianeri et al., 2013; Stice & Bearman, 2001). The physical changes continue to take place during early adulthood (ranging in age from 20 to 40) where physical development peaks for young adults and then starts to slowly decline (Feldman, 2016; Rathus, 2017). During the end of early adulthood, the noticeable physical changes (gray hair, skin elasticity, development of wrinkles, weight gain) seem to be particularly problematic for women. These appearance changes influence women's body satisfaction, especially in Western societies, where women gain value and status through appearance (Tiggemann, 2004). Moreover, when individuals enter middle adulthood (ranging from 40 to 65), the physical changes become more noticeable than previous periods of life. Body shape changes dramatically, as the rate of lean-body mass is replaced by fat. This results in individuals gaining more weight and consequently having higher BMI (Rathus, 2017). Therefore, individuals' body dissatisfaction remains stable within this period as well (Grogan, 1999; Stevens & Tiggemann, 1998; Tiggemann, 2004; Tiggemann & Lynch, 2001).

While body dissatisfaction remains stable across the life span, research also suggests that another body image dimension, that of investment in appearance, does decrease with age (Cash, Winstead & Janda, 1986; Pliner, Chaiken & Flett, 1990; Thompson et al., 1998). It appears that, as individuals grow older, they do not invest in their appearance as much as they did when they were younger. According to Tiggemann (2004), this is not because women are satisfied with their bodies but because appearance matters less to them. However, some of the research in this area is not consistent since there are a few studies that suggest that appearance investment does not change across age (Davison & McCabe, 2005; Webster & Tiggemann, 2003). Similarly, research examining the internalization of thin and athletic ideals also suggests a decrease as individuals grow older (Bedford & Johnson, 2006). The link between internalized appearance ideals and body dissatisfaction has been well-documented (Argyrides, Kkeli & Koutsantoni, 2015). Much of this research suggests that the greater the commitment to appearance ideals the greater the body dissatisfaction (Cusumano & Thompson, 1997; Heinberg, Thompson & Stormer, 1995; Jones, Vigfusdottir, & Lee, 2004; Smolak, Levine, & Thompson, 2001).

Additionally, another bundle of research has shown that body image dissatisfaction is linked to lower self-esteem. It has been shown that high self-esteem serves as a protective factor against body dissatisfaction and eating disorders (Geller, Zaitsoff, & Srikameswaran, 2002; Shisslak, Pazda, & Crago, 1990; Tiggemann & Williamson, 2000) whereas low self-esteem is linked to increased vulnerability of body image dissatisfaction (Markham, Thompson, & Bowling, 2005). Developmental research that examined the correlation between self-esteem and body dissatisfaction as individuals grow older has shown that, as women grow older, appearance and weight become less of an important part of one's self-esteem. Specifically, research suggests that self-esteem increases as individuals move from adolescence to early adulthood and remains high until about the ages of 60 to 70 which then sharply declines (Robins, Trzesniewski, Tracy, Gosling, & Potter, 2002; Tiggemann, 2004).

The island-country of Cyprus is of great interest in the body image literature as argued by Argyrides et al. (2015). Specifically, the authors are claiming that Cyprus has some unique characteristics, which in combination, provide significant risks for body image dissatisfaction. In detail, the authors argue that the year-round warm weather of Cyprus results in inhabitants wearing lighter and more revealing clothing. In addition, there was a great emphasis placed by the inhabitants on their social and personal image (i.e. housing, appearance, vehicles) a few years after the economic boost that followed the 1974 Turkish invasion. Moreover, no prevention strategies have ever been implemented and in contrary, the school curriculum addressing these issues decreased. Last, Cyprus has been found to have significantly higher levels of anxiety about weight and appearance than many other European countries (Christodoulou & Argyrides, 2018). Therefore, the combination of these four factors makes Cyprus of great interest and more detailed investigation is necessary. Moreover, research conducted in Cyprus has shown that body image-related issues and disordered eating among Greek-Cypriots, and especially girls, are more frequent compared to other European countries like Greece, Italy, Spain, England, France and Switzerland (Argyrides, 2013; Argyrides et al. 2015; Argyrides, Kkeli & Koutsantoni, 2016; Katsounari, 2009). Furthermore, Hadjigeorgiou, Tornaritis, Savva, Solea, & Kafatos (2012) found significantly higher rates of disordered eating in Cyprus than many other countries. Because of these concerning findings, studies examining Greek-Cypriots and especially women are very important. Based on all of the above, the current study wanted to examine body image-related issues, media influences and self-esteem across the life span in Greek-Cypriot women across three different age groups: adolescent high-school girls, university female students in early adulthood, and women in middle adulthood.

The aim of the current study was threefold: i. to examine and evaluate possible changes between different age-groups on the following variables of interest: self-esteem, investment in appearance, satisfaction with appearance, weight-related anxiety, internalization of the thin ideal, perception of media as a good source of information in regards to appearance and media as a source of pressure towards appearance; ii. to examine the relationships between these variables and BMI across the different age-groups; and iii. to assess for significant predictors of appearance satisfaction and examine whether these predictors differ across the age-groups. Based on the aims of the study, the following non-directional hypotheses were developed:

H1: There will be significant differences between the three age groups (high-school adolescent girls, university women in early adulthood and women in middle adulthood) on the variables of self-esteem, investment in appearance, satisfaction with one's appearance, weight-related anxiety, internalization of the thin ideal, perception of media as a good source of information in regards to appearance, and media as a source of pressure towards one's appearance.

H2: The relationships between the variables of interest will differ among the three age groups (adolescence, early adulthood and middle adulthood).

H3: There will be different significant predictors of satisfaction with appearance among the three age groups.

## Method

### Participants

A total of 458 females participated in the study. Specifically, there were 155 adolescent high school girls ( $M_{\text{age}} = 15.56$ ,  $SD_{\text{age}} = 1.3$ , Range = 14-18), 218 female university students in early adulthood ( $M_{\text{age}} = 27.52$ ,  $SD_{\text{age}} = 4.76$ , Range = 18-39) and 95 females in middle adulthood ( $M_{\text{age}} = 46.8$ ,  $SD_{\text{age}} = 6.3$ , Range = 40-65). [Table 1](#) describes the mean height, weight and Body Mass Index of the three age groups. The sample consisted of Greek-Cypriot females that came from all regions of the country.

Table 1

*Mean Height, Weight and Body Mass Index of the Three Age Groups*

Age Group	Mean Height in Centimetres	Mean Weight in Kilograms	BMI (SD)
Adolescent Girls	162.74 (6.20)	53.69 (8.79)	20.28 (3.15)
Women in Early Adulthood	163.28 (6.11)	57.60 (10.69)	21.53 (3.32)
Women in Middle Adulthood	165.85 (5.63)	66.99 (13.21)	24.35 (4.60)

### Measures

#### Satisfaction with Appearance, Investment in Appearance and Weight-Related Anxiety

To measure participants' appearance satisfaction, investment in appearance and weight-related anxiety, the Multidimensional Body-Self Relations Questionnaire-Appearance Scales (MBSRQ-AS; [Cash, 2000](#); [Argyrides & Kkeli, 2013](#) for the Greek version) was used. From the five subscales of the original MBSRQ-AS, only three were used for the current study. Specifically, the Appearance Evaluation subscale was used which comprises of seven items measuring feelings of physical attractiveness and satisfaction with one's appearance; the Appearance Orientation subscale comprising of 12 items measuring the extend of cognitive and behavioural investment in one's appearance, and the Overweight Preoccupation subscale comprising of four items measuring weight-related anxiety. The items are self-rated on a 5-point Likert-type scale ranging from Strongly Agree (receiving a score of 1) to Strongly Disagree (receiving a score of 5). The subscales of the current measure have been found to have good psychometric properties with alphas above .80. For the current sample, the Cronbach's alpha coefficients for the subscale Appearance Evaluation ranged from .80 to .82 for all age groups, .79 to .82 for the Appearance Orientation subscale and .78 to .82 for the Overweight Preoccupation subscale.

#### Sociocultural Influences Towards Appearance

The Sociocultural Attitudes Towards Appearance Questionnaire—3<sup>rd</sup> Version was used to measure the endorsement of sociocultural influences towards appearance and beauty standards ([Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2004](#); [Argyrides, Kkeli, & Kendeou, 2014](#) for the Greek version). The SATAQ-3 has four subscales: Internalization-General (nine items measuring the degree of internalization of thin ideal), Internalization-Athlete (five items measuring the internalization of athletic/toned body ideals), Information (9 items measuring whether media is an important source of information for the body ideal) and Pressures (7 items measuring media's pressure to conform to cultural ideals). For the current study, the three subscales Internalization-General, Information and Pressures were used. Items are rated on a five-point Likert-type scale ranging from Definitely Disagree (receiving a score of 1) to Definitely Agree (receiving a score of 5). The SATAQ – 3 has excellent psychometric properties across several populations and ages with internal Cronbach's

alpha coefficients ranging from .84 to .93. For the current sample, the Cronbach's alphas ranged between .90 and .92 for the Internalization-General subscale on all age groups, .87 to .88 for the Information subscale, and .90 to .94 for the Pressures subscale.

### Self-Esteem

In order to measure participants' global self-esteem, the Rosenberg Self-Esteem Scale (RSES) was used (Rosenberg, 1965; Spanea, Anagnostopoulos, Kalatzi-Azizi, & Skarlos, 2005 for the Greek version). The RSES comprises of ten items of which five items assess positive and five items assess negative aspects of global self-esteem. Items are self-rated using a four-point Likert-type scale ranging from Strongly Disagree (receiving a score of 1) to Strongly Agree (receiving a score of 4). The individual item scores are summed up into a total score indicating levels of global self-esteem. The higher the score, the higher the global self-esteem of the participant. The RSES has excellent reported reliability coefficients ranging from .87 to .93. The internal consistency (Cronbach's alpha) for all age groups in the current sample ranged from .84 to .87.

### Procedure

The current study received the necessary ethics approval. For high-school adolescent girls, the necessary consent was given by their parents who were informed about the aims of the study. Data were recruited during regular school hours where a research assistant provided participants with a paper copy of the questionnaires and remained in the classroom for any questions and collection of the data. Adolescent females were recruited among 34% of all high-schools across the country. Females in early adulthood were recruited from a private university in Cyprus where the same procedure as with high-school students was followed. Upon the necessary informed-consent, females in the early adulthood group answered the measures of interest. The middle adulthood group was recruited as a convenience sample through announcements of voluntary participation in a research study that were posted in malls, universities, community centers, and personal contact with research assistants. In all age groups, there was a fair distribution from all areas of the country. All participants reported demographic information and responded to all the questionnaires administered. Based on their self-reported height and weight, participants' Body Mass Index was also calculated. All the data were entered and analyzed using the Statistical Package for Social Sciences, Version 25.0 (SPSS 25).

## Results

To address the 1<sup>st</sup> Hypothesis (H1) which addressed possible differences between the three age groups and the variables of interest, Multivariate Analyses of Variance (MANOVAs) were conducted. The dependent variables were self-esteem, investment in appearance, appearance satisfaction, weight-related anxiety, internalization of the thin ideal, perception of media as a good source of information, and media as a source of pressure and the independent variable was age group (adolescence, early adulthood, and middle adulthood). Furthermore, Tukey post-hoc tests were computed to further assess between-group differences.

### Self-Esteem

The MANOVA on self-esteem revealed a statistically significant difference between the three age groups,  $F(2, 467) = 16.32, p < 0.05$ . As shown in Figure 1 and as hypothesized, the findings indicated that self-esteem increases as women grow older. The Tukey post-hoc test indicated that adolescent girls had significantly lower

self-esteem score than women in early adulthood ( $p < 0.05$ ). Similarly, statistically significant differences were also found between adolescent girls and women in middle adulthood ( $p < 0.05$ ), with adolescent girls having, again, lower levels of self-esteem than women in middle adulthood. Lastly, the analysis did not show statistically significant differences of self-esteem levels between women in early adulthood and women in middle adulthood ( $p > 0.05$ ).

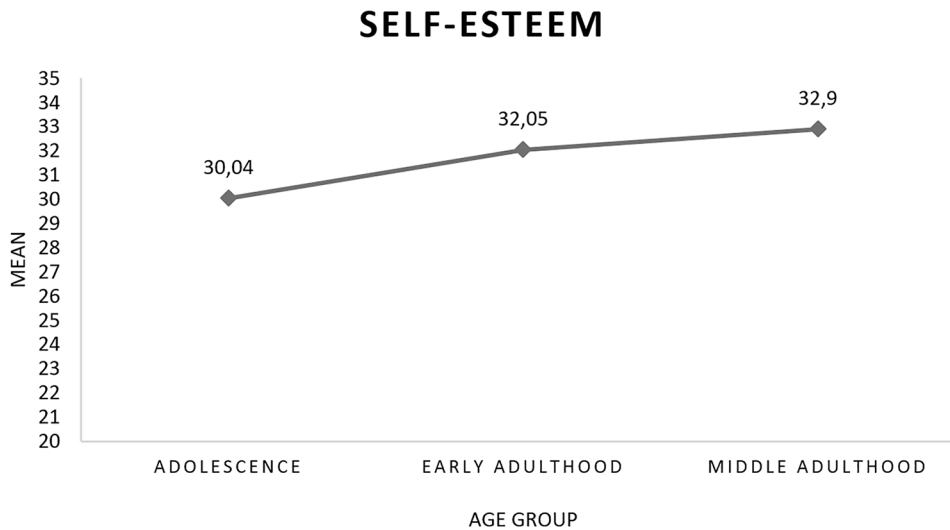


Figure 1. Mean score of self-esteem for the three age groups.

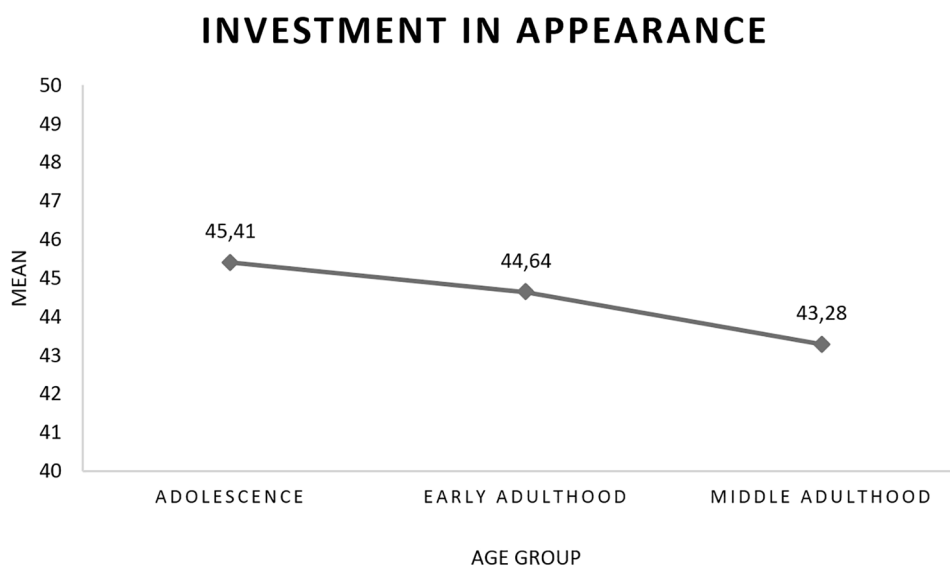


Figure 2. Mean score of investment in appearance for the three age groups.

## Investment in Appearance

The MANOVA revealed a statistically significant difference between the three age groups on investment in appearance,  $F(2, 467) = 3.47$ ,  $p < 0.05$ . As can be seen in Figure 2, as women grow older, their investment in appearance decreases. Tukey post-hoc analysis revealed that adolescent girls invested significantly more in

their appearance than women in the middle adulthood group ( $p < 0.05$ ). The post-hoc tests did not indicate any significant differences in investment in appearance between early adulthood and adolescent girls ( $p > 0.05$ ) nor with early adulthood and middle adulthood ( $p > 0.05$ ). It is worth noting, however, that investment in appearance remains high throughout the age groups considering that the maximum possible score on the measure is 60 and the Greek-Cypriot female age groups scored between 43.28 and 45.41.

## Appearance Satisfaction

The MANOVA revealed a statistically significant main effect of age groups on appearance satisfaction,  $F(2, 467) = 2.68, p < 0.05$ , indicating changes across the life span (Figure 3). Post-hoc analyses revealed a statistically significant difference between adolescent girls and women in early adulthood ( $p < 0.05$ ), indicating that as women move from adolescence to early adulthood, they appear to be more satisfied with their appearance. However, there was no statistically significant difference on appearance satisfaction between adolescent girls and women in middle adulthood ( $p > 0.05$ ). As seen in Figure 3, body satisfaction seems to decrease again to the lower levels that were present in the adolescence age group. Furthermore, although women in early adulthood appear to be more satisfied with their appearance than women in middle adulthood, post-hoc tests showed that this difference did not reach statistical significance ( $p > 0.05$ ).

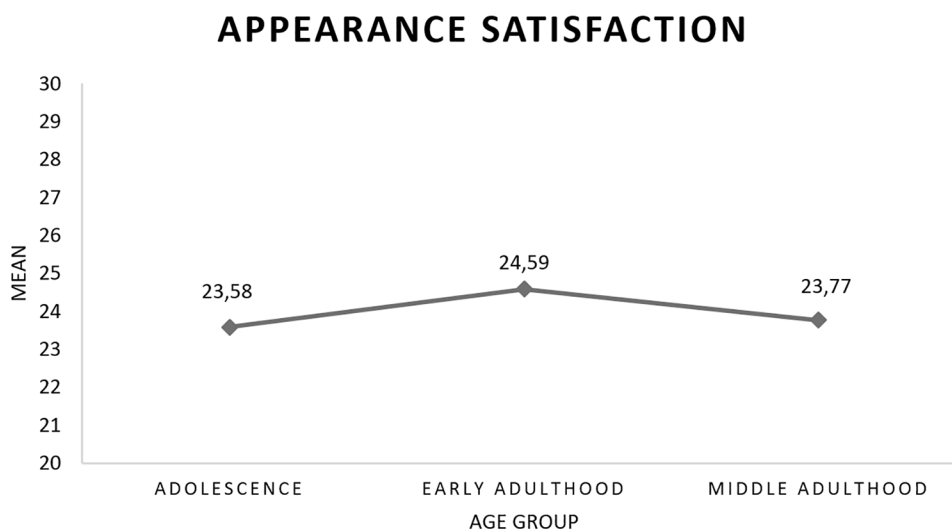


Figure 3. Mean score of appearance satisfaction for the three age groups.

## Weight-Related Anxiety

The MANOVA on weight-related anxiety showed a statistically significant main effect of age groups,  $F(2, 467) = 3.12, p < 0.05$ . As can be seen in Figure 4, there is a decrease of weight-related anxiety from adolescence to early adulthood and then an increase again from early adulthood to middle adulthood. Post-hoc analyses revealed a statistically significant difference between adolescent girls and women in early adulthood ( $p < 0.05$ ), indicating that adolescent girls have higher levels of weight-related anxiety as compared to women in early adulthood. Moreover, when adolescent girls were compared to women in middle adulthood, the analysis did not show statistically significant differences ( $p > 0.05$ ) suggesting that adolescent girls experience similar levels of weight-related anxiety to women in middle adulthood. Similarly, post-hoc analyses that compared women in



early adulthood and women in middle adulthood showed no statistical significant differences between the two groups ( $p > 0.05$ ).

### WEIGHT-RELATED ANXIETY

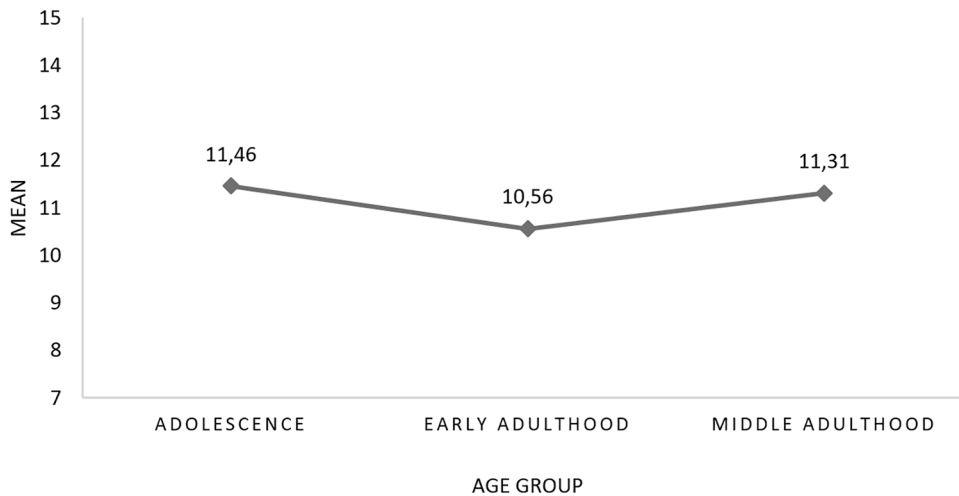


Figure 4. Mean score of weigh-related anxiety for the three age groups.

### INTERNALIZATION OF THE THIN IDEAL

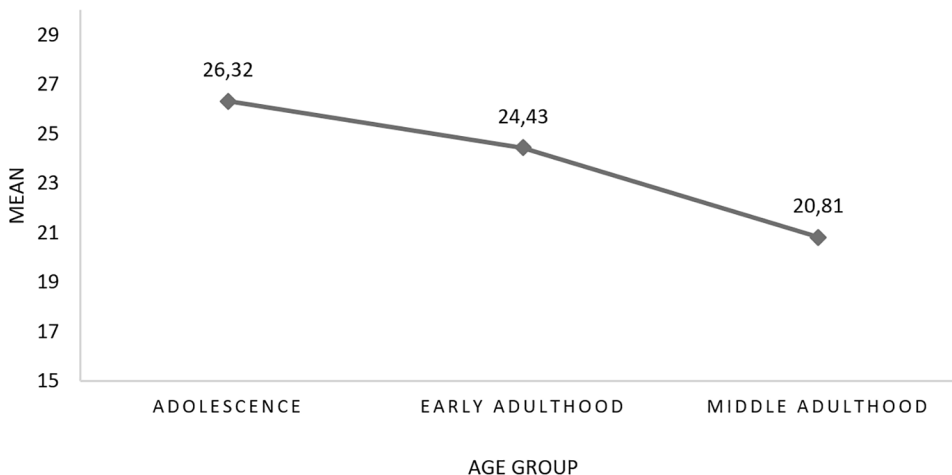


Figure 5. Mean score of internalization of thin ideals for the three age groups.

### Internalization of the Thin Ideal

The MANOVA revealed a statistically significant difference between the age groups on internalization of the thin ideal,  $F(2, 467) = 14.87, p < 0.05$ . As can be seen in Figure 5, the internalization of the thin ideal decreases with age. Post-hoc analyses showed a significant difference between adolescent girls and women in early adulthood ( $p < 0.05$ ) and middle adulthood ( $p < 0.05$ ), implying that girls in adolescence have higher levels of the internalization of the thin ideal than women in early or middle adulthood. Additionally, there was a statistical-

ly significant difference between women in early adulthood and women in middle adulthood ( $p < 0.05$ ), indicating higher levels of the internalization in women in the early adulthood age group.

### Media as a Source of Information

The MANOVA revealed a significant main effect of age group on the perception of the media as a good source of information,  $F(2, 467) = 5.61, p < 0.05$ . Figure 6 shows that the impact of the variable is high for both adolescent girls and women in early adulthood, and then decreases for women in middle adulthood. Post-hoc analyses showed that adolescent girls perceived the media as a good source of information regarding beauty significantly more than women in middle adulthood ( $p < 0.05$ ). Similarly, the perception of the media as a good source of information is less in women in middle adulthood than women in early adulthood ( $p < 0.05$ ). Lastly, there was no statistical significant differences between adolescent girls and women in early adulthood ( $p > 0.05$ ) suggesting that both adolescent girls and women in early adulthood perceive the media as a good source of information in a similar manner.

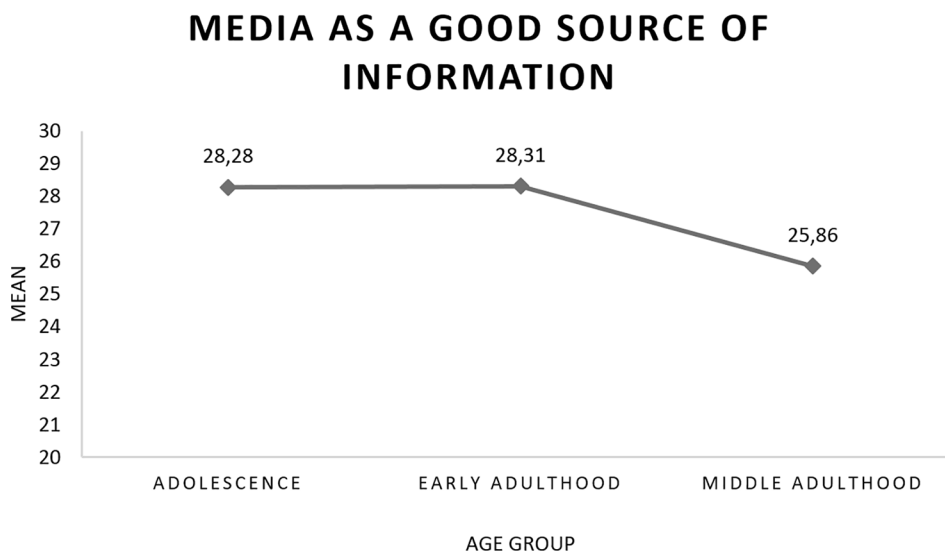


Figure 6. Mean score of media as a good source of information for the three age groups.

### Media as a Source of Pressure

The MANOVA revealed that there was no significant main effect of age group on the perceived pressures from the media,  $F(2, 467) = 1.58, p > 0.05$ , indicating similar levels of pressures from the media across all age groups.

To assess the second hypothesis (H2) which addressed possible differences between the relationships among the variables of interest (self-esteem, investment in appearance, satisfaction with one's appearance, weight-related anxiety, internalization of the thin ideal, perception of media as a good source of information in regards to appearance, media as a source of pressure towards one's appearance, and BMI) and the three age groups (adolescent girls, women in early adulthood, and women in middle adulthood), Pearson Product Moment correlations were carried out for each age group. As can be seen in Table 2, most correlations were common across the three age groups and a few correlations differed.

Table 2

Correlation Matrix Between the Variables of Interest Across the Three Age Groups

Variable/Age Group	1	2	3	4	5	6	7	8
<b>1 Self-Esteem</b>								
Adolescence	---							
Early Adulthood	---							
Middle Adulthood	---							
<b>2 Investment in Appearance</b>								
Adolescence	-.055	---						
Early Adulthood	.017	---						
Middle Adulthood	.042	---						
<b>3 Appearance Satisfaction</b>								
Adolescence	.642**	-.033	---					
Early Adulthood	.436**	.183**	---					
Middle Adulthood	.300**	.153	---					
<b>4 Weight-Related Anxiety</b>								
Adolescence	-.324**	.419**	-.377**	---				
Early Adulthood	-.174**	.392**	-.306**	---				
Middle Adulthood	-.103	.445**	-.252*	---				
<b>5 Internalization of the Thin Ideal</b>								
Adolescence	-.268**	.426**	-.293**	.599**	---			
Early Adulthood	-.245**	.353**	-.258**	.417**	---			
Middle Adulthood	-.313**	.302**	-.141	.306**	---			
<b>6 Media as Source of Pressure</b>								
Adolescence	-.220**	.238**	-.279**	.507**	.662**	---		
Early Adulthood	-.314**	.169*	-.291**	.483**	.768**	---		
Middle Adulthood	-.259*	.217*	-.118	.334**	.682**	---		
<b>7 Media as Good Source of Information</b>								
Adolescence	-.085	.319**	-.127	.368**	.539**	.493**	---	
Early Adulthood	-.223**	.299**	-.08	.201**	.529**	.440**	---	
Middle Adulthood	.07	.371**	-.069	.240*	.512**	.548**	---	
<b>8 BMI</b>								
Adolescence	-.156	-.032	-.369**	.308**	.053	.125	-.027	---
Early Adulthood	-.095	-.164*	-.339**	.298**	.128	.307**	.087	---
Middle Adulthood	.163	.084	-.467**	.215*	.089	.107	.138	---

\* $p < .05$  (2-tailed). \*\* $p < .01$  (2-tailed).

Note. 1 = Self Esteem - Rosenberg's Self Esteem Scale, 2 = Investment in Appearance - MBSRQ Appearance Orientation, 3 = Appearance Satisfaction -MBSRQ Appearance Evaluation, 4 = Weigh-Related Anxiety - MBSRQ Overweight Preoccupation, 5 = Internalization of the Thin Ideal – SATAQ-3-Internalization-General, 6 = Media as Source of Pressure – SATAQ-3-Pressures, 7 = Media as Good Source of Information – SATAQ-3-Information, 8 = BMI

Concerning the commonalities in the relationships among the three age groups, there was a statistically significant positive relationship between self-esteem and appearance satisfaction and a statistically significant negative correlation between self-esteem and internalization of the thin ideal and perception of the media as a source of pressure. This implies that, regardless of age group, when one's self-esteem is high, one is also more satisfied with their appearance, has lower levels of the thin ideal internalization and does not feel significant pressure from the media concerning appearance.

Another common statistically significant positive correlation among all age groups was observed between weight-related anxiety and investment in appearance, internalization of the thin ideal, perception of media as a source of pressure, perception of media as a good source of information, and BMI. Among all age groups, weight-related anxiety was also negatively related to appearance satisfaction. This suggests that, regardless of age group, the higher the weight-related anxiety, the higher their internalization of the thin ideal, the more one invested in their appearance, the higher their perception of the media as a source of pressure and as a good source of information, the higher their BMI and the lower their levels of satisfaction with regards to their appearance.

Additionally, and as expected, the three subscales of the SATAQ-3 (internalization of the thin ideal, perception of media as a source of pressure and media as a good source of information) also significantly correlated among all age groups. This implies that, regardless of age group, the higher the internalization of the thin ideal, the more they perceived the media as a good source of information and the more pressure they felt from the media.

Furthermore, for all age groups, appearance satisfaction was significantly and negatively correlated to BMI. This suggests that the higher the BMI of women of all age groups the lower the satisfaction they felt about their appearance.

There were also some correlations that were unique in certain age groups. Specifically, in the early adulthood age group, there was a statistically significant positive relationship between investment in appearance and satisfaction with one's appearance, implying that the more women in early adulthood invested in their appearance, the higher level of satisfaction they felt in regards to their appearance. In the same age group, a statistically significant negative relationship was found between self-esteem and perception of media as a good source of information. This suggests that the higher the self-esteem of women in early adulthood, the less likely they were to perceive the media as a good source of information. Moreover, a statistically significant positive correlation for women in early adulthood was also observed between BMI and media as a source of pressure. This implies that the higher the BMI of women in this age group, the higher the pressure they felt from the media. Lastly, for the young adulthood age group, there was a statistically significant negative correlation between BMI and investment in appearance. This suggests that the higher the BMI of women in early adulthood, the less likelihood they were to invest in their appearance.

Within the age groups of adolescent girls and women in early adulthood, there were some common relationships that were not statistically significant for women in middle adulthood. More specifically, for these two age groups, self-esteem was statistically and significantly negatively correlated to weight-related anxiety, implying that the higher the self-esteem for these two groups, the less anxious they were about their weight and appearance. Also, for these two age groups (adolescent girls and women in early adulthood), appearance satisfaction was significantly and negatively related to the internalization of the thin ideal and perception of media as a source of pressure. This suggests that the more satisfied these two groups are with their appearance, they have lower levels of the internalization of the thin ideal and perception of media as a source of pressure.

To address the 3<sup>rd</sup> hypothesis (H3) referring to the different predictors of appearance satisfaction among the three age groups, three forward stepwise multiple regression analyses were conducted to evaluate how well the variables included in the study predicted appearance satisfaction in adolescent girls, women in early adulthood, and women in middle adulthood. The predictor variables were self-esteem, investment in appearance,

appearance satisfaction, weight-related anxiety, internalization of the thin ideal, perception of media as a good source of information, and media as a source of pressure, whereas the criterion variable was appearance satisfaction.

The stepwise regression equation for adolescent girls (Table 3) was statistically significant,  $F(2, 154) = 60.62$ ,  $p < 0.001$  and accounted for 44.4% of the variance of appearance satisfaction ( $R^2 = .444$ , adjusted  $R^2 = .436$ ). For adolescent girls, satisfaction with appearance was primarily predicted by self-esteem ( $\beta = .580$ ,  $t = 9.074$ ,  $p < .001$ ) which accounted for 41.2% of the total variance of appearance satisfaction, followed by weight-related anxiety ( $\beta = -.189$ ,  $t = -2.959$ ,  $p < .001$ ), which added another 3.2% to the total variance.

Table 3

Summary of Multiple Regression of Adolescent Girls Appearance Satisfaction

Independent Predictor Variable	B	SE	$\beta$	t	Sig.
Rosenberg Self-Esteem Scale	.604	.067	.580	9.074	.000
MBSRQ-Overweight Preoccupation (Weigh-Related Anxiety)	-.246	.083	-.189	-2.959	.004

The stepwise regression equation for women in early adulthood (Table 4) was also statistically significant,  $F(4, 217) = 29.06$ ,  $p < 0.001$ , and accounted for 35.3% of the variance of appearance satisfaction ( $R^2 = .353$ , adjusted  $R^2 = .341$ ). Similar to adolescent girls, appearance satisfaction for women in early adulthood was primarily predicted by self-esteem ( $\beta = .332$ ,  $t = 5.765$ ,  $p < 0.001$ ) which accounted for 19% of the total variance, followed by weight-related anxiety ( $\beta = -.319$ ,  $t = -5.008$ ,  $p < 0.001$ ), which added another 5.5% to the total variance, followed by investment in appearance ( $\beta = .363$ ,  $t = 5.837$ ,  $p < 0.001$ ), which added another 8.6% to the variance, followed by internalization of the thin ideal ( $\beta = -.171$ ,  $t = -2.676$ ,  $p < 0.001$ ), which added another 2.2% to the total variance of appearance satisfaction.

Table 4

Summary of Multiple Regression of Women's in Early Adulthood Appearance Satisfaction

Independent Predictor Variables	B	SE	$\beta$	t	Sig.
Rosenberg Self-Esteem Scale	.342	.059	.332	5.765	.000
MBSRQ-Overweight Preoccupation (Weigh-Related Anxiety)	-.350	.070	-.319	-5.008	.000
MBSRQ-Appearance Orientation (Investment in Appearance)	.222	.038	.363	5.837	.000
SATAQ-3-Internalization-General (Internalization of the Thin Ideal)	-.089	.033	-.171	-2.676	.008

Lastly, the stepwise regression equation for women in middle adulthood (Table 5) was also significant,  $F(3, 94) = 8.188$ ,  $p < 0.001$ , and accounted for 21.3% of the variance of appearance satisfaction ( $R^2 = .213$ , adjusted  $R^2 = .187$ ). Similarly to the previous two age groups, within women in middle adulthood, appearance satisfaction was primarily predicted by self-esteem ( $\beta = .250$ ,  $t = 2.665$ ,  $p < 0.001$ ) which accounted for 9% of the total variance of appearance satisfaction, followed by weight-related anxiety ( $\beta = -.361$ ,  $t = -3.441$ ,  $p < 0.001$ ) which added another 4.9% to the total variance, followed by investment in appearance ( $\beta = .303$ ,  $t = 2.906$ ,  $p < 0.001$ ) which added another 7.4% to the total variance of appearance satisfaction.

Table 5

Summary of Multiple Regression of Women's in Middle Adulthood Appearance Satisfaction

Independent Predictor Variable	<i>B</i>	<i>SE</i>	$\beta$	<i>t</i>	Sig.
Rosenberg Self-Esteem Scale	.281	.105	.250	2.665	.009
MBSRQ-Overweight Preoccupation (Weigh-Related Anxiety)	-.464	.135	-.361	-3.441	.001
MBSRQ-Appearance Orientation (Investment in Appearance)	.229	.079	.303	2.906	.005

## Discussion

The current study aimed to examine possible changes in women across three age groups (adolescents, early adulthood and middle adulthood) on the following variables: self-esteem, investment in appearance, satisfaction with appearance, weight-related anxiety, internalization of the thin ideal, perception of media as a good source of information in regards to appearance, and media as a source of pressure towards appearance. Moreover, the current study aimed to assess the relationships between these variables across the different age groups and possible differences amongst them. Lastly, the current study aimed to assess for possible differences in significant predictors of appearance satisfaction across the three age groups.

The results of the current study support the first hypothesis referring to significant differences in the variables of interest as women age and are in concordance with previous findings (Grogan, 1999; Stevens & Tiggemann, 1998; Tiggemann, 2004). Examining the variables in more detail, results showed that women in middle adulthood reported higher global self-esteem than the other two groups (early adulthood and adolescent girls). This finding is in line with previous research that supported that self-esteem increases as individuals grow older and remains high until about 60 to 70 years old (Robins et al., 2002; Tiggemann, 2004). Furthermore, an interesting finding in reference to appearance satisfaction indicated an increase in body image satisfaction from adolescence to early adulthood and then a decrease from early adulthood to middle adulthood. This finding may be related to the physical changes that take place during middle adulthood. These physical changes (such as skin elasticity, development of wrinkles and weight gain) appear to have an effect on body image satisfaction, probably because the body in middle adulthood starts to differ from the standards portrayed by Western society concerning beauty and the thin ideal portrayed by the media. This interpretation is in line with Tiggemann's (2004) arguments that the physical changes that take place in each period of life have a different effect on the individual. Tiggemann's argument is further supported by the present results which show that adolescent girls experience high dissatisfaction with their body, possibly related to the physical changes that take place during puberty (more rounded body shape for girls). Additionally, the results provide further evidence for the role of self-esteem as a protective factor against body dissatisfaction, a finding previously supported by other researchers as well (Geller et al., 2002; Markham et al., 2005; Shisslak et al., 1990; Tiggemann & Williamson, 2000). However, the current results also show that, even though women in the middle adulthood group have higher self-esteem than the other two age groups, this does not serve as a protective factor alone concerning their dissatisfaction with their appearance.

Moreover, concerning the cognitive and behavioral investment in appearance assessed in the current study, results showed a small decrease with age. Overall, women in the middle adulthood group invest less in their appearance than both young adult women and adolescent girls. This is in concordance with previous research which supported that as women age, they invest less in their appearance (Cash et al., 1986; Pliner et al., 1990;

Thompson et al., 1998). One possible explanation of this finding is in line with the suggestion put forward by Tiggemann (2004), who argued that the less investment in appearance is not because older women are more satisfied with their body but maybe because it matters less to them. Argyrides & Sivitanides (2017) previously supported the relationship between investment in appearance and media influences in Cyprus as well. This relationship is further supported from the current results which show that older women tend to invest less in their appearance, possibly resulting from feeling less pressure from the media and having a weak perception of the media as a good source of information concerning beauty standards. We are reiterating the interesting finding about the levels of investment in appearance and how they seem to remain high throughout the three age groups. This finding can be interpreted by the reasons portrayed earlier of why Cyprus is important in the body image literature (i.e. warm weather and revealing clothing, emphasis on image, etc.). These reasons seem to make women, regardless of age, to pay attention to their appearance and invest in it.

When examining weigh-related anxiety, results showed that among the three age groups, the group with the lesser anxiety were women in early adulthood. This finding was expected considering that women in early adulthood was the group with the highest appearance satisfaction levels. Adolescent girls' high anxiety was also expected as they had the lowest levels of appearance satisfaction and the lowest levels of self-esteem, both linked to weight-related anxiety. Nevertheless, the unique finding that women in the middle adulthood group experience similar levels of anxiety to the adolescent group imposes an important challenge on body image literature in Cyprus since previous studies in other countries found a decrease in anxiety levels as women get older (Tiggemann, 2004). Overall, results indicate that women in middle adulthood have higher levels of global self-esteem, invest somewhat less in their appearance, but still experience high levels of weight-related anxiety. A possible explanation of the current finding is again, the uniqueness of Cyprus in regards to body image issues, as described earlier in the article. It appears that the year-round warm weather (resulting in lighter and more revealing clothing to be worn), the great emphasis placed on social and personal/body image after the economic boost that followed the 1974 Turkish invasion and the lack of any prevention culture/strategies, makes Greek-Cypriot women feel more weight-and-appearance-related anxiety. This finding supports previous literature that examined body-image-related issues in Cyprus (Argyrides & Kkeli, 2015; Argyrides & Sivitanides, 2017).

Furthermore, and in concordance with previous research (Bedford & Johnson, 2006), there is a noticeable decrease in internalization of the thin ideal as women get older. This finding might be linked to how different age groups perceive the information about the ideal image portrayed by the media. The current findings suggest a more favorable perception of the media as a good source of information concerning beauty in adolescent girls and women in early adulthood as compared to women in middle adulthood. As previous literature has suggested, people who internalize the thin ideal are more likely to compare their own personal ideal and how that relates to the ideal projected by the media (Dittmar & Howard, 2004; Homan, 2010). Therefore, it is possible that when one starts to reject or question the information provided by the media concerning the ideal, one also starts to internalize the thin ideal to a lesser degree. Another possible explanation is in line with researchers who concluded that as women age and become heavier, they tend to compare themselves with ideal figures that are also increased in size (Lamb, Jackson, Cassidy & Priest, 1993; Stevens & Tiggemann, 1998) or they compare themselves to age-appropriate peers rather than to the youthful and thin ideals portrayed by the media (Grogan, 1999). Older women also seem to accept to a lesser degree the information portrayed by the media as a good source of information concerning the beauty ideal.

The current findings also suggest no significant differences between the three groups in regards to the pressures they feel from the media concerning appearance. However, we believe that this finding is not because the three different groups perceive media pressures in the same way but because of the unequal sample sizes, especially of women in middle adulthood. Our results provide a trend where there seems to be an increase of perceived pressure from adolescence to early adulthood and then a decrease from early adulthood to middle adulthood (more than one scale score). However, the above mentioned trend did not reach statistical significance ( $p$  value between .05 and .10), even though such a trend was supported from previous findings which suggested that media influences change as women grow older (Grogan, 1999; Lamb et al., 1993; Stevens & Tiggemann, 1998). This lack of finding in the expected direction in Cyprus needs to be assessed further in future research.

Results also indicated that the relationships between the variables of interest are overall similar, regardless of age group. Specifically, and regardless of age group, we found that the higher the self-esteem, the higher was one's satisfaction with appearance and the lower the internalization of the thin ideal and perception of the media as a source of pressure. These findings further support the existing literature placing high self-esteem as a protective factor against body dissatisfaction and eating disorders (Geller et al., 2002; Shisslak et al., 1990; Tiggemann & Williamson, 2000). Moreover, the findings also indicate that individuals with high self-esteem are less likely to internalize the thin ideal and less likely to feel pressure from the media.

Furthermore, and regardless of age group, positive relationships were found between the variables of appearance investment, weight-related anxiety, thin-ideal internalization, pressure from media, and media as a good source of information. It seems that in all age groups, high levels of weight-related anxiety lead to high levels of investment in appearance. Argyrides (2017) argued this specific direction in Cyprus and these findings provide more support for further investigation. The role of the media pressures, media information and internalization of the thin ideal should also be considered for further research across all age groups. Additionally, and not surprisingly, the current results showed that high BMI leads to higher levels of weight-related anxiety. The results clearly suggest that women of all ages whose BMI is high, experience more anxiety with regards to their weight. This finding is not surprising considering that women with high BMI are far from the societal standards of beauty and body ideal portrayed, therefore, this discrepancy between the actual and ideal weight causes more anxiety about their weight. This suggestion is also in line with another current finding that women with higher BMI are less satisfied with their appearance. It appears that women of all age groups that weigh more than the "ideal" weight are less satisfied with their appearance and experience higher levels of weight-related anxiety (Argyrides et al., 2015). Moreover, and supported by previous research, appearance satisfaction was negatively correlated to weight-related anxiety across all groups indicating that the greater the satisfaction with one's appearance, the less anxious one felt about their appearance (Argyrides & Kkeli, 2015). Furthermore, in line with previous research and as expected, common relationships across the three age groups were found within the subscales of the SATAQ-3 (thin ideal internalization, pressured from media and perception of media as a good source of information) (Argyrides & Sivitanides, 2017; Cohen, 2006; Kim & Lennon, 2007; Stevens & Tiggemann, 1998).

Results also showed that there were relationships that were not common among all three groups. For adolescent girls, the higher their self-esteem the less they perceived the ideal portrayed by the media as a good source of information. The relationship between self-esteem and the media is not new (Cohen, 2006; Kim & Lennon, 2007; Grogan, 1999; Lamb et al., 1993; Stevens & Tiggemann, 1998). This relationship may be signifi-



cant only with the adolescent group as their self-esteem is still fragile and affected by many external factors (identity under development). Furthermore, the results showed that for the early adulthood group, investment in appearance was positively correlated with appearance satisfaction. That is, the more women in early adulthood invested in their appearance, the more satisfaction they felt with their appearance. This shows that for this group, body image satisfaction and consequently their self-esteem, is highly related to how much they invest in their appearance. A possible explanation for this interesting finding is multidimensional and the answer may be found in developmental factors (such as the beginning of forming intimate relationships), social and occupational factors (such as the importance of appearance in occupational interviews and work identity), and financial factors, since they start to be financially independent (Tiggemann & Slevec, 2012). Additionally, for the early adulthood age group, BMI was positively related to the perception of media as a source of pressure and negatively related to investment in appearance. In other words, the higher their BMI the more perceived pressure from the media was present and the less they invested in their appearance. A possible explanation for this finding may be the accumulation of the negative effects of negative body image at this age group and the increasing pressure from the media to be thin. This may in turn, have a discouraging effect on females who feel so much anxiety and pressure, therefore, giving up on the idea of losing weight and investing less in their appearance.

Lastly, the common relationships found in the adolescent group and the young adult group (but not in the middle adulthood group) referring to self-esteem, weight-related anxiety, appearance satisfaction, the internalization of the thin ideal and pressures from the media, provide important information for mental health professionals and researchers that are developing prevention programs, as those should be targeted mainly at the primary prevention level and with preadolescents.

Finally, the findings of significant predictors of appearance satisfaction across all age groups revealed a common trend. Specifically, the results showed that appearance satisfaction was primarily predicted by self-esteem followed by weight-related anxiety. This is an important finding; first, it supports the well-documented positive relationship between self-esteem and satisfaction with one's appearance (Geller et al., 2002; Markham et al., 2005; Shisslak et al., 1990; Tiggemann & Williamson, 2000) and secondly, it also supports the previous discussion of the uniqueness of Cyprus in regards to body-image-related issues. The current overall findings clearly show that weight-related anxiety is high across all age groups and predicts satisfaction with appearance in Greek-Cypriot girls/women. Furthermore, the current results show that more factors impact appearance satisfaction as women age. A third factor that was common for women in early adulthood and women in middle adulthood (but not for adolescent girls) was investment in appearance. In concordance with Argyrides (2017), investment in appearance is positively related to appearance satisfaction both in women in early and middle adulthood. It is possible that investment in appearance did not serve as a predictor in adolescent girls as their investment in appearance depends mainly on their parents' budget and cannot invest (spend money) as much as they would like, as they are not economically independent. It is also possible that the drive for intimate relationships may not be as strong in order to allow for high levels of investment in appearance. Lastly, the results showed that there was a fourth predictor of appearance satisfaction for women in early adulthood. For this age group, internalization of the thin ideal was added as a predictor together with self-esteem, weight-related anxiety and appearance investment. This further supports the changes that appear to take place from early adulthood to middle adulthood. It is evident that the internalization of the thin ideal impacts negatively on body image, however this influence appears to decrease with age.

## Application to Counseling Psychology

The results of the present study could be used by counseling psychologists and mental health professionals in general who work with all age groups and with researchers working on developing prevention programs with individuals who are struggling with their body image and self-esteem. As was previously suggested by Argyrides and Kkeli (2015), prevention programs in Cyprus should be implemented immediately. These efforts should start by primary prevention and targeting preadolescents who appear to be the group of interest in order to prevent future psychological damage. These prevention programs should address healthier eating attitudes and body image, as well as ways that will reinforce possible protective factors such as self-esteem and body appreciation.

## Future Research and Limitations

Future research should also be directed towards a more detailed model of how these variables interact depending on age so that prevention programs can be directed towards all (and different) age groups accordingly. The assessment of the directions of these variables across different age groups should also direct future research. Finally, future research should also assess further whether media influences do, in fact, decrease as women grow older in Cyprus.

The current research is limited by the unequal number of participants in the three age groups. Furthermore, the study would be stronger in assessing life span changes in body image if it included preadolescent girls as well as women in late adulthood. A similar study using preadolescent girls and women over the age of 65 is recommended for further investigation. Additionally, the current research involved self-report questionnaires, which always raises questions of whether participants were objective in their responses.

## Funding

The authors have no funding to report.

## Competing Interests

One of the authors, Marios Argyrides, is the guest editor for this special thematic section on "Body Image and Disordered Eating in Cyprus".

## Acknowledgments

The authors have no support to report.

## References

- Ackard, D. M., Croll, J. K., & Kearney-Cooke, A. (2002). Dieting frequency among college females: Association with disordered eating, body image, and related psychological problems. *Journal of Psychosomatic Research, 52*, 129-136. [https://doi.org/10.1016/S0022-3999\(01\)00269-0](https://doi.org/10.1016/S0022-3999(01)00269-0)
- Argyrides, M. B. (2013). Mass media, feelings of attractiveness, investment in body image and disordered eating in Cyprus. *The Mediterranean E-Journal of Communications and Media, 2*(1). Available from <http://mediaejournal.org/media-and-disordered-eating-in-cyprus-2/>

- Argyrides, M. (2017, May). *Body image and media influences: A life span approach to age and culturally diverse populations*. Symposium presented at the 16th Conference of the Greek Psychological Society, Thessaloniki, Greece.
- Argyrides, M., & Kkeli, N. (2013). Multidimensional Body-Self Relations Questionnaire-Appearance Scales: Psychometric properties of the Greek version. *Psychological Reports, 113*, 885-897. <https://doi.org/10.2466/03.07.PR0.113x29z6>
- Argyrides, M., & Kkeli, N. (2015). Predictive factors of disordered eating and body image satisfaction in Cyprus. *International Journal of Eating Disorders, 48*(4), 431-435. <https://doi.org/10.1002/eat.22310>
- Argyrides, M., Kkeli, N., & Kendeou, P. (2014). Validation of the factor structure of the Greek adaptation of the Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ-3). *Body Image, 11*, 201-205. <https://doi.org/10.1016/j.bodyim.2014.02.003>
- Argyrides, M. B., Kkeli, N., & Koutsantoni, M. (2015). Body image, sociocultural influences and self-esteem: The case of Cyprus. In R. Vargas (Ed.), *Body image: Social influences, ethnic differences and impact on self-esteem* (pp. 77-95). New York, NY, USA: Nova Science.
- Argyrides, M. B., Kkeli, N., & Koutsantoni, M. (2016, June). *Differences in media influences and body image between Cyprus and other European countries*. Paper presented at the Appearance Matters 7 Conference, London, United Kingdom.
- Argyrides, M., & Sivitanides, M. (2017). Body image, self-esteem, media, disordered eating and actual ideal weight discrepancy: Findings in Cyprus. *The European Journal of Counselling Psychology, 6*(1), 63-74. <https://doi.org/10.5964/ejcop.v6i1.109>
- Bedford, J. L., & Johnson, C. S. (2006). Societal influences on body image dissatisfaction in younger and older women. *Journal of Women & Aging, 18*, 41-55. [https://doi.org/10.1300/J074v18n01\\_04](https://doi.org/10.1300/J074v18n01_04)
- Bucchianeri, M. M., Arikian, A. J., Hannan, P. J., Eisenberg, M. E., & Neumark-Sztainer, D. (2013). Body dissatisfaction from adolescence to young adulthood: Findings from a 10-year longitudinal study. *Body Image, 10*(1), 1-7. <https://doi.org/10.1016/j.bodyim.2012.09.001>
- Byely, L., Archibald, A. B., Graber, J., & Brooks-Gunn, J. (2000). A prospective study of familial and social influences on girls' body image and dieting. *International Journal of Eating Disorders, 28*(2), 155-164. [https://doi.org/10.1002/1098-108X\(200009\)28:2<155::AID-EAT4>3.0.CO;2-K](https://doi.org/10.1002/1098-108X(200009)28:2<155::AID-EAT4>3.0.CO;2-K)
- Cash, T. F. (2000). *MBSRQ users' manual* (3rd ed.) Norfolk, VA, USA: Old Dominion University Press.
- Cash, T. F., & Pruzinsky, T. (2002). *Body image: A handbook of theory, research, and clinical practice*. New York, NY, USA: Guilford.
- Cash, T. F., Winstead, B. A., & Janda, L. H. (1986). Body image survey report: The great American shape-up. *Psychology Today, 24*, 30-37.
- Christodoulou, A., & Argyrides, M. (2018, November). Comparing Cyprus to other European nations on body-image-related issues. Paper presented at the 7th Counseling Psychology Conference, Volos, Greece.
- Cohen, S. B. (2006). Media exposure and the subsequent effects on body dissatisfaction, disordered eating, and drive for thinness: A review of current research. *Mind Matters: The Wesleyan Journal of Psychology, 1*, 57-71.

- Cusumano, D. L., & Thompson, J. K. (1997). Body image and body shape ideals in magazines: Exposure, awareness, and internalization. *Sex Roles*, 37(9-10), 701-721. <https://doi.org/10.1007/BF02936336>
- Davison, T. E., & McCabe, M. P. (2005). Relationships between men's and women's body image and their psychological, social, and sexual functioning. *Sex Roles*, 52(7-8), 463-475. <https://doi.org/10.1007/s11199-005-3712-z>
- Dittmar, H., & Howard, S. (2004). Professional hazards? The impact of models' body size on advertising effectiveness and women's body-focused anxiety in professions that do and do not emphasize the cultural ideal of thinness. *British Journal of Social Psychology*, 43(4), 477-497. <https://doi.org/10.1348/0144666042565407>
- Feldman, R. S. (2016). *Development Across the Life Span* (8th ed.). Hoboken, NJ, USA: Pearson.
- Freedman, R. J. (1984). Reflections on beauty as it relates to health and adolescent females. *Women & Health*, 9, 29-45. [https://doi.org/10.1300/J013v09n02\\_03](https://doi.org/10.1300/J013v09n02_03)
- Geller, J., Zaitsoff, S. L., & Srikameswaran, S. (2002). Beyond shape and weight: Exploring the relationship between nonbody determinants of self-esteem and eating disorder symptoms in adolescent females. *International Journal of Eating Disorders*, 32(3), 344-351. <https://doi.org/10.1002/eat.10083>
- Grogan, S. (1999). *Body Image*. London, United Kingdom: Routledge.
- Hadjigeorgiou, C., Tornaritis, M., Savva, S., Solea, A., & Kafatos, A. (2012). Secular trends in eating attitudes and behaviours in children and adolescents aged 10-18 years in Cyprus: A 6-year follow-up, school-based study. *Public Health*, 126, 690-694. <https://doi.org/10.1016/j.puhe.2012.04.014>
- Heinberg, L. J., Thompson, J. K., & Stormer, S. (1995). Development and validation of the sociocultural attitudes towards appearance questionnaire (SATAQ). *International Journal of Eating Disorders*, 17, 81-89. [https://doi.org/10.1002/1098-108X\(199501\)17:1<81::AID-EAT2260170111>3.0.CO;2-Y](https://doi.org/10.1002/1098-108X(199501)17:1<81::AID-EAT2260170111>3.0.CO;2-Y)
- Homan, K. (2010). Athletic-ideal and thin-ideal internalization as prospective predictors of body dissatisfaction, dieting, and compulsive exercise. *Body Image*, 7(3), 240-245. <https://doi.org/10.1016/j.bodyim.2010.02.004>
- Jones, D. C., Vigfusdottir, T. H., & Lee, Y. (2004). Body image and the appearance culture among adolescent girls and boys: An examination of friend conversations, peer criticism, appearance magazines, and the internalization of appearance ideals. *Journal of Adolescent Research*, 19, 323-339. <https://doi.org/10.1177/0743558403258847>
- Katsounari, I. (2009). Self-esteem, depression and eating disordered attitudes: A cross-cultural comparison between Cypriot and British young women. *European Eating Disorders Review*, 17, 455-461. <https://doi.org/10.1002/erv.946>
- Kim, J., & Lennon, S. J. (2007). Mass media and self-esteem, body image, and eating disorder tendencies. *Clothing & Textiles Research Journal*, 25, 3-23. <https://doi.org/10.1177/0887302X06296873>
- Lamb, C. S., Jackson, L. A., Cassidy, P. B., & Priest, D. J. (1993). Body figure preferences of men and women: A comparison of two generations. *Sex Roles*, 28, 345-358. <https://doi.org/10.1007/BF00289890>
- Markham, A., Thompson, T., & Bowling, A. (2005). Determinants of body image shame. *Personality and Individual Differences*, 38, 1529-1541. <https://doi.org/10.1016/j.paid.2004.08.018>
- Neumark-Sztainer, D., Paxton, S. J., Hannan, P. J., Haines, J., & Story, M. (2006). Does body satisfaction matter? *The Journal of Adolescent Health*, 39, 244-251. <https://doi.org/10.1016/j.jadohealth.2005.12.001>

- Pliner, P., Chaiken, S., & Flett, G. L. (1990). Gender differences in concern with body weight and physical appearance over the life span. *Personality and Social Psychology Bulletin*, *16*, 263-273. <https://doi.org/10.1177/0146167290162007>
- Rathus, S. A. (2017). *Childhood & Adolescence: Voyages in Development* (6th ed.). Boston, MA, USA: Cengage Learning.
- Robins, R. W., Trzesniewski, K. H., Tracy, J. L., Gosling, S. D., & Potter, J. (2002). Global self-esteem across the life span. *Psychology and Aging*, *17*, 423-434. <https://doi.org/10.1037/0882-7974.17.3.423>
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ, USA: Princeton University Press.
- Shisslak, C. M., Pazda, S. C., & Crago, M. (1990). Body weight and bulimia as descriptors of psychological characteristics among anorexic, bulimic, and obese women. *Journal of Abnormal Psychology*, *99*, 380-384. <https://doi.org/10.1037/0021-843X.99.4.380>
- Smolak, L., Levine, M. P., & Thompson, J. K. (2001). The use of the sociocultural attitudes towards appearance questionnaire with middle school boys and girls. *International Journal of Eating Disorders*, *29*, 216-223. [https://doi.org/10.1002/1098-108X\(200103\)29:2<216::AID-EAT1011>3.0.CO;2-V](https://doi.org/10.1002/1098-108X(200103)29:2<216::AID-EAT1011>3.0.CO;2-V)
- Spanea, E., Anagnostopoulos, F., Kalatzi-Azizi, A., & Skarlos, D. (2005). Psychosocial adjustment of patients with breast cancer. *Hellenic Journal of Psychology*, *2*, 159-182.
- Stevens, C., & Tiggemann, M. (1998). Women's body figure preferences across the life span. *The Journal of Genetic Psychology*, *159*, 94-102. <https://doi.org/10.1080/00221329809596137>
- Stice, E., & Bearman, S. K. (2001). Body image and eating disturbances prospectively predict increases in depressive symptoms in adolescent girls: A growth curve analysis. *Developmental Psychology*, *37*, 597-607. <https://doi.org/10.1037/0012-1649.37.5.597>
- Thompson, J. K., & Stice, E. (2001). Thin-ideal internalization: Mounting evidence for a new risk factor for body image disturbance and eating pathology. *Current Directions in Psychological Science*, *10*, 181-183. <https://doi.org/10.1111/1467-8721.00144>
- Thompson, J. K., van den Berg, P., Roehrig, M., Guarda, A., & Heinberg, L. J. (2004). The sociocultural attitudes towards appearance questionnaire-3 (SATAQ-3): Development and validation. *International Journal of Eating Disorders*, *35*, 293-304. <https://doi.org/10.1002/eat.10257>
- Thompson, S. C., Thomas, C., Rickabaugh, C. A., Tantamjarik, P., Otsuki, T., Pan, D., . . . Sinar, E. (1998). Primary and secondary control over age-related changes in physical appearance. *Journal of Personality*, *66*, 583-605. <https://doi.org/10.1111/1467-6494.00025>
- Tiggemann, M. (2004). Body image across the adult lifespan: Stability and change. *Body Image*, *1*(1), 29-41. [https://doi.org/10.1016/S1740-1445\(03\)00002-0](https://doi.org/10.1016/S1740-1445(03)00002-0)
- Tiggemann, M., & Lynch, J. E. (2001). Body image across the life span in adult women: The role of self-objectification. *Developmental Psychology*, *37*, 243-253. <https://doi.org/10.1037/0012-1649.37.2.243>
- Tiggemann, M., & Rothblum, E. D. (1997). Gender differences in internal beliefs about weight and negative attitudes towards self and others. *Psychology of Women Quarterly*, *21*, 581-593. <https://doi.org/10.1111/j.1471-6402.1997.tb00132.x>

- Tiggemann, M., & Sleviec, J. (2012). Appearance in adulthood. In N. Rumsey & D. Harcourt (Eds.), *The Oxford handbook of the psychology of appearance* (pp. 142–159). Oxford, United Kingdom: Oxford University Press.
- Tiggemann, M., & Williamson, S. (2000). The effect of exercise on body satisfaction and self-esteem as a function of gender and age. *Sex Roles, 43*(1/2), 119-127. <https://doi.org/10.1023/A:1007095830095>
- Webster, J., & Tiggemann, M. (2003). The relationship between women's body satisfaction and self-image across the life span: The role of cognitive control. *The Journal of Genetic Psychology, 164*(2), 241-252. <https://doi.org/10.1080/00221320309597980>
- Wiseman, C. V., Gray, J. J., Mosimann, J. E., & Ahrens, A. H. (1992). Cultural expectations of thinness in women: An update. *International Journal of Eating Disorders, 11*, 85-89. [https://doi.org/10.1002/1098-108X\(199201\)11:1<85::AID-EAT2260110112>3.0.CO;2-T](https://doi.org/10.1002/1098-108X(199201)11:1<85::AID-EAT2260110112>3.0.CO;2-T)