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# The Comparison of Cyprus to Six Other European Countries on Body Image Satisfaction, Appearance Investment and Weight and Appearance-Related Anxiety

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## Abstract

Previous research has pointed out the importance of Cyprus in the body image literature as well as the importance of body-image cross-cultural investigations. The purpose of the current study was to compare appearance satisfaction, investment in appearance and weight and appearance-related anxiety between female university students from Cyprus and female university students from France, Germany, Greece, Netherlands, Spain and Poland. Participants were 199 females whose scores on the measures of interest were compared to archived published means from the other six countries. Results indicated that Greek-Cypriot female university students scored significantly higher than *all* countries assessed on investment in appearance and weight and appearance-related anxiety. Additionally, female participants from Cyprus scored in the middle of the appearance satisfaction scale scoring higher than Greece and France, lower than the Netherlands and Germany and having similar results to Spain and Poland. A discussion follows elaborating on the argument of why Cyprus is significant in the body image literature, and the interpretation of the results using the cognitive-behavioral perspective of body image satisfaction. Recommendations for mental health professionals and other professionals in the public health sector are also provided.

**Keywords:** Cyprus, body image, appearance satisfaction, investment in appearance, weight and appearance-related anxiety

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A great deal of attention is given to the area of body image the last two decades as negative body image has been found to predict several psychological problems (Stice, Hayward, Cameron, Killen, & Taylor, 2000) such as disordered eating, low self-esteem, depression, and social anxiety (Cash, 1990; Cash, 2005; Frederick & Morrison, 1996; Leondari, 2011; Thompson, 1992) whereas positive body image has been correlated to happiness, life satisfaction (Tylka, 2011) and quality of life (Cash & Fleming, 2002). Body image is a multidimensional concept which includes perceptions of one's body, as well as thoughts, feelings, and behaviors towards one's body and physical appearance (Grogan, 1999; Muth & Cash, 1997). This concept encompasses evaluation, affect, and the importance of, or degree of investment, in one's appearance (Cash, 1994a). Evaluation refers to the degree a person is satisfied or dissatisfied with his/her physical appearance and how one evaluates his/her own body (Muth & Cash, 1997). Affect refers to emotional experiences concerning these self-evaluations of the body that are elicited in specific situations (Cash, 1994b; Szymanski & Cash, 1995) and investment refers to the degree of focus on one's physical appearance and amount of behaviors directed towards appearance (Cash, 1994a; Cash & Labarge, 1996). Even though ideals of the perfect body and appearance are portrayed in most cultures, these ideals differ cross-culturally (Yam, 2013). Additionally, concerning body image and age,

body dissatisfaction has been found to be stable across the adult life span of females (Tiggemann & Lynch, 2001). Cyprus, an island-country on the south-eastern end of the European Union, has been of interest in the literature concerning body image issues (Argyrides, Kkeli, & Koutsantoni, 2015). Argyrides et al. (2015) argue that Cyprus is of great interest due to four significant reasons: a) there was a significant emphasis placed by the inhabitants on their physical appearance, self-presentation, and social image after the great boost in economy that took place on the unoccupied part of Cyprus after Turkey's invasion in 1974 (Katsounari, 2009); b) research on body image and disordered eating in Cyprus found that the prevalence of negative body image, disordered eating, and eating disorders is high (affecting up to approximately 34% of the female population) (Argyrides, 2013; Hadjigeorgiou et al., 2012; Katsounari, 2009; Zeeni, Gharibeh, & Katsounari, 2013); c) there is a lack of a prevention culture in general as indicated by the absence of any prevention programs and by the minimal emphasis placed by the school curriculum on body image and disordered eating issues, as the related modules have been reduced significantly (Ministry of Education and Culture of Cyprus, 2015) and d) the year-round warm weather in Cyprus, which causes lighter, more revealing clothing to be worn. Warm weather has been associated with negative body image and disordered eating in the past (Sloan, 2002). Sloan's (2002) research aimed to investigate the relationship between warm weather climate, disordered eating, and body image concerns. The sample of this study consisted of female undergraduate students in Florida and Pennsylvania. The mean annual temperature in Florida is 23 degrees Celsius and in Pennsylvania is 12 degrees Celsius. The findings of this study showed that females living in Florida had greater tendency to develop disordered eating in comparison to females living in Pennsylvania. Furthermore, it was found that women from Florida had more concerns about their body shape than their counterparts from Pennsylvania. This study demonstrated that disordered eating pathology and body shape concerns were greater in areas with warm climate, such as Florida. Cyprus's climate is comparable with Florida's, and therefore, Sloan's study findings could be applicable in Cyprus as well.

Body image, as a multidimensional concept, can be assessed by a widely used instrument named the Multidimensional Body-Self Relations Questionnaire-Appearance Scales [MBSRQ-AS], which evaluates the appearance-related components of the body image construct (Cash, Morrow, Hrabosky, & Perry, 2004). Specifically, the MBRAQ-AS measures (a) feelings of physical attractiveness or unattractiveness and satisfaction or dissatisfaction with one's looks; (b) the extent of investment in one's appearance, (c) fat anxiety, weight vigilance, dieting, and eating restraint, (d) how one perceives and labels one's weight, and (e) satisfaction or dissatisfaction with specific areas of the body.

Therefore, based on the importance of Cyprus in the literature and the importance of body-image cross-cultural investigations, the purpose of the current study was to compare MBSRQ-AS results among European countries that have used the measure in published studies. It is hypothesized that due to the Cyprus-specific reasons mentioned above, Greek-Cypriot university-age female students will have significantly higher body image concerns as measured by the MBSRQ-AS than other European countries. A combination of an extensive literature review of published research that utilized the MBSRQ-AS and a population matching (used data only from university-age students) revealed that a comparison was possible between Cyprus female university students and female university students from France, Germany, Greece, Netherlands, Spain and Poland. The differences between Cyprus and the six above countries on the key points mentioned in this paper can also be found in Table 1.

Table 1

*Differences by Country on the Three Main Areas addressed in This Paper*

Country	Increased Status and Appearance Consciousness <sup>a</sup>	Elevated Deficient Negative Body Image and Disordered Eating Prevention Problems <sup>b</sup>	Warm, Outdoor, Beach-Oriented Culture Climate
Cyprus	Y	Y	Y
France	N	N	N
Germany	N	N	N
Greece	N	N	Y
Netherlands	N	N	N
Spain	N	N	Y
Poland	N	N	N

*Note.* Y = Yes; N = No.

<sup>a</sup>A significant historical event or set of events in the past 50 years has set in motion an increased emphasis among adolescents and young adults on physical appearance, self-presentation, and social image. <sup>b</sup>Previous epidemiological research strongly suggests elevated rates of negative body image and disordered eating problems.

## Theoretical Framework of the Study

The study is viewed through the Cognitive-Behavioral Perspective on Body Image (Cash, 2012) asserting that “there are two core dimensions of body image attitudes: (1) body image evaluation which refers to persons’ satisfaction or dissatisfaction with and evaluative beliefs about their body and (b) body image investment which refers to the cognitive, behavioural and emotional importance of the body for self-evaluation” (p. 334). Based on Cash’s theory, body image investment is extremely important in understanding body image evaluation as this sheds light “on the psychological importance that individuals place on their appearance” (p. 338). Cash continues to give an example of two separate individuals who are both dissatisfied with their appearance, yet, if only one has high body image investment, they would be expected to be more cognitively, emotionally and behaviorally affected by their body image dissatisfaction. Therefore, higher levels of body image investment would inevitably evoke negative emotional reactions by individuals.

## Method

### Participants

The total number of participants from each country as well as their mean age, height and weight are presented in Table 2. Based on a matching of the populations used in the comparison papers, results from female Greek-Cypriot college students were compared to archived data from published articles that used the MBSRQ from France, Germany, Greece, Netherlands, Spain and Poland. In order to match all the samples and make them comparable, only the data of the female participants were used.

Table 2

*Participants' Demographic Information*

Country	N	Age		Citation
		M	SD	
Cyprus	199 females	26.6	3.85	Current Paper
France	182 males	31.0	13.3	Untas, et al., 2009
	582 females	33.3	13.4	
Germany	293 females	25.69	6.28	Vossbeck-Elsebusch et al., 2014
Netherlands	319 females	22.05	2.48	van den Brink et al., 2013
Spain	347 males	23.11	6.10	Roncero, et al., 2015
	694 females			
Greece	92 females	23.0	3.53	Costarelli et al., 2009
Poland	341 females	23.09	3.14	Brytek-Matera & Rogoza, 2015

## Measures

### Multidimensional Body-Self Relations Questionnaire–Appearance Scales

The Multidimensional Body-Self Relations Questionnaire–Appearance Scales (MBSRQ-AS; Cash, 2000; Argyrides & Kkeli, 2013 for the Greek version) is composed of five subscales. These include the 7-item Appearance Evaluation scale, which measures feelings of physical attractiveness or unattractiveness, and satisfaction or dissatisfaction with one's looks (scored on a 5-point-Likert type scale ranging from Completely Agree to Completely Disagree). High scorers feel mostly positive and satisfied with their appearance and low scorers have a general unhappiness with their physical appearance. The 12-item Appearance Orientation scale assesses the extent of investment in one's appearance and is also scored on a 5-point-Likert type scale ranging from Completely Agree to Completely Disagree. The 4-item Overweight Preoccupation scale assesses fat anxiety, weight vigilance, dieting, and eating restraint answered on the same Likert-type scale. The Self-Classified Weight scale consists of two items and reflects how one perceives and labels one's weight (ranging from Very Underweight to Very Overweight). Finally, the 9-item Body Areas Satisfaction Scale (BASS) assesses satisfaction or dissatisfaction with specific areas of the body on a 5-point scale (Complete Satisfaction to Complete Dissatisfaction). Each MBSRQ-AS subscale score is the mean of its constituent items (Brown, Cash, & Mikulka, 1990). The subscales of the MBSRQ–AS have good psychometric properties with reported internal consistency coefficients ranging from .70 to .89 and 1-month test-retest reliabilities ranging from .74 to .91 (Cash, 2000). According to Cash (2000), the internal consistencies were based on normative samples and the test-retest reliability coefficients were obtained from samples of university students 18 years of age or over.

Based on the review of the literature and the population sampling, only three of the subscales of the MBSRQ-AS were common among all countries, therefore these three were used in the present study. Specifically, the Appearance Evaluation, the Appearance Orientation and the Overweight Preoccupation subscales of the MBSRQ-AS were used. In each country, the adapted MBSRQ-AS in the native language was used with sufficient psychometric properties for all languages used. For the sample of the current study, the internal consistency coefficient of the Appearance Evaluation subscale was .86, for the Appearance Orientation was .91 and for the Overweight Preoccupation .88.

## Procedure

Upon ethical approval, participants in Cyprus were recruited from a private university. Participants were contacted via e-mail and invited to participate in the study. They were informed of the nature of the study and were kindly asked to participate. They were also informed that their participation was anonymous and voluntary and were asked to complete the questionnaire during a scheduled lecture period. In case the participants had any questions, a research assistant was present to provide answers. No specific questions were asked that could be problematic to the results of the study. Regarding the data from the other European countries, the first authors of the published articles were approached via e-mail and permission was granted to use their means and standard deviations in our analyses.

## Statistical Analysis

In order to address our hypothesis that the mean scores of the three MBSRQ-AS subscales from the female participants from Cyprus will statistically differ from the published means of the same scales of the other female European participant countries, one-sample t-tests were used. The data met the necessary assumptions for the use of the t-test and the Kolmogorov-Smirnov Test was not significant ( $z = .95, p > .05$ ). In order to decrease the likelihood of a Type-I Error, a Bonferroni adjustment was made to the alpha value and the results were assessed at the .008 level of significance.

## Results

### Satisfaction with Appearance (MBSRQ-AS Appearance Evaluation)

Concerning the variable of satisfaction with appearance (and as can be seen in Table 3), results indicated that female participants from Cyprus did not significantly differ from Spain,  $t(198) = -0.24, p > .05$ , or Poland,  $t(198) = 1.88, p > .05$ , indicating similar results of satisfaction with appearance. Furthermore, female participants from Cyprus scored significantly higher on appearance satisfaction than female participants from France,  $t(198) = 5.89, p < .001$ ; Cohen's  $d = .42$ , and Greece,  $t(198) = 8.01, p < .001$ ; Cohen's  $d = .21$ , indicating more satisfaction with appearance. Moreover, female participants from Cyprus scored significantly lower on appearance satisfaction as compared to participants from Germany,  $t(198) = -5.19, p < .001$ ; Cohen's  $d = -.13$ , and the Netherlands,  $t(198) = -2.65, p = .008$ , indicating less satisfaction with appearance. Therefore, this hypothesis was partially supported.

### Investment in Appearance (MBSRQ-AS Appearance Orientation)

Concerning the variable of investment in appearance (and as can also be seen in Table 3), results indicated that female participants from Cyprus scored significantly higher than *all* the countries assessed indicating significantly more investment in their appearance. Specifically, female participants from Cyprus scored significantly higher than France,  $t(198) = 5.72, p < .001$ ; Cohen's  $d = .41$ , Spain,  $t(198) = 3.27, p < .001$ ; Cohen's  $d = .24$ , Germany,  $t(198) = 14.31, p < .001$ ; Cohen's  $d = 1.02$ , Greece,  $t(198) = 16.76, p < .001$ ; Cohen's  $d = 1.20$ , Poland,  $t(198) = 2.96, p = .003$ ; Cohen's  $d = .22$ ) and the Netherlands,  $t(198) = 7.56, p < .001$ ; Cohen's  $d = .54$ ). The mean score of Cyprus on investment in appearance had the highest discrepancy with the countries of

Table 3

Differences in Mean Scores Between Cyprus and the Six Comparing Countries

Variable	Country						
	CY	FR	SP	GE	GR	PL	NL
Mean Satisfaction with Appearance	3.33	3.08**	3.34	3.55**	2.99**	3.25	3.44
<i>t</i>		5.89	-0.24	-5.19	8.01	1.88	-2.65
<i>p</i>		.000	.809	.000	.000	.061	.008
Mean Investment in Appearance	3.84	3.65**	3.73**	3.37**	3.29**	3.74**	3.59**
<i>t</i>		5.72	3.27	14.31	16.76	2.96	7.56
<i>p</i>		.000	.001	.000	.000	.003	.000
Mean Weight and Appearance-Related Anxiety	2.82	2.70*	2.54**	2.26**	2.42**	2.47**	2.36**
<i>t</i>		2.12	4.93	9.86	7.04	6.17	8.10
<i>p</i>		.007	.000	.000	.000	.000	.000

Note. Satisfaction with Appearance is the mean of the Appearance Evaluation subscale of the MBSRQ-AS. Investment in Appearance is the mean of the Appearance Orientation subscale of the MBSRQ-AS. Weight and Appearance-Related Anxiety is the mean of the Overweight Preoccupation subscale of the MBSRQ-AS. CY = Cyprus, FR = France, SP = Spain, GE = Germany, GR = Greece, PL = Poland and NL = Netherlands. N of Cyprus = 199. *df* = 198 on all tests.

Greece, Germany and the Netherlands respectively, indicating that these countries invest the least in their appearance as compared to Cyprus. Therefore, this hypothesis was supported.

### Weight-and-Appearance-related Anxiety (MBSRQ-AS Overweight Preoccupation)

Concerning the variable of weight-and-appearance-related anxiety (and as can also be seen in Table 3), results indicated that female participants from Cyprus scored significantly higher than *all* the countries assessed indicating significantly more anxiety related to weight and appearance. Specifically, female participants from Cyprus scored significantly higher than France,  $t(198) = 2.12$ ,  $p = .007$ ; Cohen's  $d = .15$ , Spain,  $t(198) = 4.93$ ,  $p < .001$ ; Cohen's  $d = .35$ , Germany,  $t(198) = 9.86$ ,  $p < .001$ ; Cohen's  $d = .70$ , Greece,  $t(198) = 7.04$ ,  $p < .001$ ; Cohen's  $d = .50$ , Poland,  $t(198) = 6.17$ ,  $p < .001$ ; Cohen's  $d = .44$ , and the Netherlands,  $t(198) = 8.10$ ,  $p < .001$ ; Cohen's  $d = .58$ . The mean score of Cyprus on weight and appearance-related anxiety had the highest discrepancy with the countries of Germany, Greece, Poland and the Netherlands respectively, indicating that these countries have the least weight and appearance-related anxiety as compared to Cyprus. Therefore, this hypothesis was supported.

## Discussion

The purpose of the current study was to compare Greek-Cypriot female university students to university female students from France, Germany, Greece, the Netherlands, Spain and Poland on appearance satisfaction, investment in appearance and weight and appearance-related anxiety as these are measured by the Appearance Evaluation, Appearance Orientation, and Overweight Preoccupation subscales of the MBRQ-AS. This study hypothesized that due to the particularity of Cyprus in factors affecting body image, Cyprus will have significantly problematic findings on the MBSRQ-AS scales as compared to the other European countries. More specifically, Cyprus is unique in that there is a great emphasis placed on appearance and social image, there is year-round warm weather resulting in revealing clothing to be worn, there is no prevention culture on body image issues

and previous epidemiological findings found problematic eating-related behaviours. The framework of the study is placed through the Cognitive-Behavioral Perspective on Body Image (Cash, 2012) asserting the two core dimensions of body image attitudes; body image evaluation (referring to satisfaction or not with appearance and evaluative body beliefs) and body image investment (cognitive, behavioural and emotional importance of body self-evaluation).

The findings of the study supported the hypothesis that Greek-Cypriot female university students have significantly more concerning body image attitudes and behaviours than the other European countries assessed. Specifically, Cyprus female university students scored significantly higher than *all* countries assessed on investment in appearance and weight and appearance-related anxiety, both referring to the investment aspect of the cognitive-behavioral model. Additionally, concerning appearance satisfaction, Cyprus scored significantly lower than Germany and the Netherlands and significantly higher than France and Greece. There were no differences when appearance satisfaction was compared to Spain and Poland.

Even though the initial results concerning satisfaction with appearance may be puzzling, we provide an explanation that is greatly supported by our initial argument of why Cyprus is significant in the body image literature in combination with an interpretation based on the cognitive-behavioral perspective. As previously mentioned, a few years after the 1974 Turkey invasion, Cyprus experienced a great economic boost, which in turn resulted in changes in residents' lifestyle, self-presentation, social image and physical appearance (Argyrides et al., 2015; Katsounari, 2009). This emphasis on social and body image is observed in the population by the choices they make to buy brands of any goods that are significantly expensive and by the great emphasis in investment in appearance (i.e. well-and-neatly-dressed most of the day, nearly every day, even for everyday casual social situations). It seems that the investment component of the cognitive-behavioral model referring to the cognitive, behavioural and emotional importance of body self-evaluation is internalized and appears as the norm. This may explain Cyprus's very high levels of investment in appearance and appearance-related anxiety found in the study as compared to all the other European countries. Furthermore, based on Cash's Cognitive-Behavioral Perspective (Cash, 2012), higher levels of body image investment would inevitably evoke negative emotional reactions by individuals. This is seen clearly in the case of Cyprus where there is a great psychological importance placed on investment, inevitably resulting in behavioural and emotional reactions that include weight vigilance, dieting and weight and appearance-related anxiety, as measured by the MBSRQ Overweight Preoccupation subscale used in the current study. Moreover, the 320 days of sunshine and year-round warm weather of Cyprus causes lighter, more revealing clothing to be worn. As previously supported by Sloan (2002), disordered eating pathology and body shape concerns were greater in areas with warm climate. This is also seen in the case of Cyprus where the female inhabitants seem to be very anxious about their weight and appearance and invest greatly in it, seemingly in their attempt to compensate for the revealing clothing. The current results indicating that Cyprus has the highest levels of investment and overweight preoccupation can also be explained by the lack of a prevention culture concerning body image and the minimal information placed in the school curriculum concerning these issues (Argyrides et al., 2015; Ministry of Education and Culture of Cyprus, 2015). More specifically, only one course in the school curriculum (Health Education) minimally covers the topic of body image and its negative effects, and the hours taught have decreased in 2016. Additionally, no prevention program has been implemented thus far. Therefore, even though Cyprus has several risk factors concerning body image as mentioned above (increased status & appearance consciousness, elevated deficient negative body image, warm, outdoor, beach-oriented culture climate) there is no prevention strategy in place in order to compensate for these risk factors. The current results are also supported by previous findings that compared Cyprus to oth-

er countries and found a significant increase in body image, disordered eating, and self-esteem concerns in Cyprus as compared to other countries (i.e. Lebanon, UK) (Argyrides, 2013; Katsounari, 2009; Zeeni et al., 2013).

Concerning satisfaction with appearance specifically and the scores placing Cyprus in the middle of the satisfaction scale (higher than Greece and France, lower than the Netherlands and Germany and similar to Spain and Poland), we support that the reason for these findings is the great investment in appearance that is present. We believe that if investment in appearance was not so high (in actuality higher than all countries assessed), levels of satisfaction with appearance would be lower in Cyprus. We know from the cognitive-behavioral model that behavioral activities in improving appearance (which there are a lot in Cyprus) will have an effect on satisfaction. Therefore, even though Cyprus has the highest levels of investment and anxiety, the behavioral components that are instigated to compensate for this, result in some body image satisfaction, not placing Cyprus at the lowest levels of all countries. This assertion requires further in-depth investigation and should be taken into consideration by researchers. Furthermore, this interpretation is by no means exhaustive of the large number of variables affecting body image satisfaction. We are only proposing and supporting a relationship between the variables of weight and appearance-related anxiety, appearance investment and appearance satisfaction in Cyprus.

The current study has some unique characteristics shedding light to a country with particular interest and with little research concerning body image. In addition, it allows and encourages further cross-cultural investigations in order to further understand the complexity of the body image construct. However, the study also has a few limitations. The authors had no access to the data sets of the other European countries (only the means and standard deviations of the MBSRQ-AS subscales were available). Therefore, no more statistical analyses could be conducted as compared to if the datasets were available (i.e. ANOVAs). Another limitation was the unequal number of participants in each study. Lastly, no data were available for males where more analyses and gender comparisons could have been conducted.

Based on the current findings, future research should be directed towards more cross-cultural investigations while enriching the variables assessed (i.e. body appreciation, internalization of the thin and athletic ideals and pressures from media, family and society) as well as including males in their samples. The results are also suggesting the important need for immediate implementation of prevention programs in Cyprus. Key stakeholders in the public health sector should be informed of the results and empirically validated prevention programs should be adopted, adjusted and implemented as soon as possible. Counseling psychologists should also take note of this need as they do place a great value in prevention strategies and should encompass negative body image issues in their application of services.

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