

General

Existential Factors' Impact on Body Dissatisfaction: An Empirical Study of Greek Adolescents and Adults

CHRYSOULA GEORGIU¹, GEORGE KLEFTARAS¹

¹ University of Thessaly, Volos, Greece, Special Education

Keywords: Body Image, Body Dissatisfaction, Existential Anxiety, Meaning in Life, Satisfaction with Life.

<https://doi.org/10.46853/001c.55641>

The European Journal of Counselling Psychology

The role of body dissatisfaction as a key factor in the development of eating disorders has been continuously attracting the attention of researchers in the field of Psychology. Preliminary research has shown that some existential factors have significant impact on body dissatisfaction. This study investigated whether and in which way Body Dissatisfaction is associated with Existential Anxiety, Meaning in Life, and Satisfaction with Life. Hypotheses developed concern the significance of relation between Body Dissatisfaction and Existential factors, differences between sexes regarding body image, predictive models for Body Dissatisfaction including the interactive effect of Age and Sex. Empirical results have been derived from a sample of 799 adolescent and adult participants from the general population in Greece, reporting on five well-known questionnaires - Body Shape Questionnaire - 8C, Multidimensional Body-Self Relations Questionnaire-Appearance Scales, Existential Anxiety Questionnaire, Meaning in Life Questionnaire and Satisfaction with Life Scale. Results indicated significant relations of Body Dissatisfaction variables with Existential Anxiety and Search for Meaning in Life. Explanatory models predicting Body Dissatisfaction were identified, which also showed that changes in Body Shape Dissatisfaction over Age were not differentiated by Sex, while changes in Overweight Preoccupation over Age were affected by Sex. The current study provides evidence that existential issues have an impact on Body Dissatisfaction; revealing a new perspective that could be integrated in counselling practice for better understanding of eating disorders, and consequently enrich and deepen the counselling process.

Highlights

- Body Shape Dissatisfaction and Overweight Preoccupation were found to be positively correlated with Existential Anxiety and Search for Meaning in Life.
- Satisfaction with Life was positively related to Appearance Evaluation, whereas negatively to Body Shape Dissatisfaction.
- Presence of Meaning in Life was identified as a significant predictive factor for Body Areas Satisfaction, and Search for Meaning in Life for Overweight Preoccupation.
- Existential Anxiety, BMI and Sex were the three common variables explaining the predictability of Body Shape Dissatisfaction, Body Areas Satisfaction and Overweight Preoccupation.
- Changes in Body Shape Dissatisfaction over Age were not differentiated by Sex, while changes in Overweight preoccupation over Age were affected by Sex.

Introduction

Body image is defined as a mental image of the size, shape, and contour of our own bodies, as well as of our feelings regarding these characteristics and parts of our bodies

(Slade, 1988). Although, body image is a complex and multifaceted construct (Cash & Pruzinsky, 1990), in contemporary Western society the major focus has been concentrated on the body's appearance (Tiggemann, 2004). Historically, body image research has focused on females, whereas recent studies have paid increased attention to men's body image issues (Edwards et al., 2014). Thus, body dissatisfaction, which manifests as a negative subjective evaluation of one's physical body (American Psychiatric Association, 2013), seems to be common among men and women in the developed world (Karazsia et al., 2017) with prevalence estimates ranging from 11 to 72% among women and 8 to 61% among men (Fiske et al., 2014). People with higher levels of body dissatisfaction are at greater risk of eating disorders (Rohde et al., 2015), thus making body dissatisfaction, a key variable in the development of eating disorders (Stice et al., 2011).

Body dissatisfaction: report on the case of Greece

The Greek population could not be differentiated; recent epidemiological data show that, children and adolescents present an increased risk for developing eating disorders (Tsekoura et al., 2021). Thus, investigating body dissatisfaction is considered necessary, especially, if we take into

account the sociocultural context of the last years and the period, which the research, was conducted; characterized mainly by Greece being part of European Union for over 40 years, during which it enjoyed an unprecedented continuous growth in standard of living for 30 years, until 2009 when it was faced by a major economic crisis.

Factors that could have a significant impact on eating disorder incidence in Greece (Janicic & Bairaktari, 2014) are: i) the impact of economic crisis on mental health (i.e. the stress related to crisis), ii) the repercussions of these dramatic socioeconomic changes and ii) the fact that countries and cultures in transition tend to display increased rates of disturbed eating or fully-fledged eating disorders (Nasser et al., 2001; Schneider-Sliwa, 2006).

Moreover, stark contrasts emerged between the traditional and contemporary Greek views of health, beauty, and eating attitudes (Yannakoulia et al., 2003). It is interesting to consider the drastic changes that have occurred within Greek culture in light of the fact that today the ideal for women is thin and waif-like (Janicic & Bairaktari, 2014).

Also, the Mediterranean diet, typically referenced for its health and salutary benefits, no longer characterizes the contemporary Greek nutritional intake (Yannakoulia et al., 2003). Due to the influences of rapid modernization and societal evolution, dietary habits have significantly altered eating behavior and food quality (Janicic & Bairaktari, 2014); there is evidence of abnormal eating, or increased BMI (Bilali et al., 2010; Kostopoulou et al., 2021).

Although, there are not sufficient epidemiological data and it is difficult to make accurate evaluations about eating disorder rates, the influential role of urbanization and globalization on Greece's societal values, eating patterns, body image and beauty ideals cannot be denied (Janicic & Bairaktari, 2014).

There is not much published work on body dissatisfaction in Greece, with some studies concentrating mainly on abnormal eating or overweight risk factors for children and adolescents (i.e. Bilali et al., 2010; Tsekoura et al., 2021). Some important information could be drawn from investigations on Greek-Cypriot samples, which address predictive factors of disordered eating and body image satisfaction (Argyrides & Kkeli, 2015), and examine body image differences across different ages (Mousoulidou et al., 2019).

Associations between Body Dissatisfaction and Existential Anxiety, Meaning in Life, Satisfaction with Life

A bundle of research indicates preliminary evidence on the connection between eating pathology or body dissatisfaction and existential anxiety, meaning in life and satisfaction with life.

Existential anxiety is hypothesized to be a core human issue in a great deal of theoretical and philosophical writing (e.g., Tillich, 1952; Yalom, 1980). The present study employed Tillich's (1952) theory of existential anxiety, revolving around three related domains of apprehension: a) fate - death, b) emptiness - meaninglessness, c) guilt - condemnation (Weems et al., 2004). Yalom (1980) suggests that as there is no way of dealing with existential issues other

than by confronting them, many individuals develop convoluted ways of avoiding them. From literature review, there is preliminary evidence that anorexia nervosa may serve as a maladaptive attempt to distract attention away from existential concerns (Fox & Leung, 2009); suggesting that people with vulnerability to eating disorders may have limited skills for dealing with existential anxiety and that anorexia nervosa may be one way of imposing meaning on their world (Fox & Leung, 2009).

Several recent studies have revealed a correlation between meaning in life and body dissatisfaction or eating pathology, showing that meaning in life constitutes a protective factor against eating disorders or body dissatisfaction (Góngora, 2014; Marco et al., 2017, 2019). Although, meaning in life seems to be an inherent construct of existential anxiety, it is often studied as an independent concept (Góngora, 2014) and was considered as such in our research.

Furthermore, satisfaction with life, which refers to the cognitive evaluation of subjective well-being (Lucas & Diener, 2009) seems to be a predictor of eating related symptoms and body dissatisfaction (Góngora, 2014).

The Present Study

Body dissatisfaction, which often precedes or omens the onset of eating disorders, has not been adequately studied in relation to existential anxiety, meaning in life, and satisfaction with life. The purpose of our research was twofold: i) to examine the role of existential issues on body dissatisfaction and provide empirical results, at a specific national setting for the first time, thus expanding existing literature, and ii) to identify aspects that could be employed in counselling practice with individuals confronting body image or eating problems. Our empirical study population included all age groups (adolescents, adults, elderly) of both sexes, enabling results not to be limited to one population category, but be applied rather widely.

Based on the aims of the study, the following research hypotheses were developed:

- H1: Body Dissatisfaction will be positively related to Existential Anxiety and negatively to Presence of Meaning in Life and Satisfaction with Life.
- H2: There will be no differences between female and male participants concerning Body Dissatisfaction variables when BMI and Age are controlled.
- H3: Existential Anxiety, Search for Meaning in Life, and BMI will be significant predictors of Body Dissatisfaction factors.
- H4: Interaction between Age and Sex will affect the predictive power of Body Dissatisfaction factors.

Method

Participants

A total of 799 individuals in Greece participated in the study. Specifically, respondents comprised 239 adolescent high school students ($M_{age} = 16.16$, $SD_{age} = .77$, Range 15-17), and 560 adults ($M_{age} = 42.55$, $SD_{age} = 15.76$, Range 18-93). The sample included 529 (66.2%) females ($M_{age} =$

Table 1. Socio-demographic characteristics of the sample ($N_{adults} = 560$, $N_{adolescents} = 299$)

Age	15-17	18 - 29	30 - 39	40 - 49	50 - 59	60+
% sample Adolescent	100					
% sample Adults		22.8	30.4	19.4	14.9	12.5
% sample total	29.9	16.0	21.3	13.6	10.4	8.8
BMI	Underweight <18.5	Normal 18.5 - 24.9	Overweight 25.0 - 29.9	Obesity 30.0 - 39.9	Extreme Obesity 40.0+	
% sample Adolescent	13.7	53.2	11.7	1.3		
% sample Adults	3.9	58.9	27.1	9.2	0.9	
% sample total	6.8	57.2	22.5	6.8	0.6	
Marital Status	Single	Married	Divorced	Widower		
% sample Adolescent	100					
% sample Adults	46.8	41.6	7	4.6		
% sample total	62.7	29.2	4.9	3.2		
Educational Level	Primary school	Junior high school	Senior high school	Vocational school	University	Postgraduate studies
% sample Adolescent			100			
% sample Adults	5	2	12.5	8.5	42	30
% sample total	3.5	1.4	38.7	6.0	29.4	21.0
Professional Status	No employment	Occasional employment	Partial employment	Full employment	Retiree	Student
% sample Adolescent						100
% sample Adults	10.9	7.7	3.1	61.1	10.9	6.3
% sample total	7.6	5.4	2.2	42.8	7.6	34.3

34.37, $SD_{age} = 17.20$, $M_{BMI} = 22.94$, $SD_{BMI} = 4.28$) and 270 (33.8%) males ($M_{age} = 35.22$, $SD_{age} = 19.16$, $M_{BMI} = 24.94$, $SD_{BMI} = 4.02$). Out of the 799 participants, 6.8% were considered¹ underweight (BMI <18.5, $M_{age} = 22.39$, $SD_{age} = 10.79$), 60.8% of normal weight (BMI 18.5 - 24.9, $M_{age} = 30.35$, $SD_{age} = 14.31$), 23.3% of overweight (BMI 25.0 - 29.9, $M_{age} = 43.85$, $SD_{age} = 20.29$), 7.1% of obesity (BMI 30.0 - 39.9, $M_{age} = 50.14$, $SD_{age} = 18.85$) and 0.6% of extreme obesity (BMI 40+, $M_{age} = 45.00$, $SD_{age} = 13.62$). Detailed characteristics of the sample are presented in [Table 1](#).

Measures

Participants reported their gender, age, current height and weight and completed the following five questionnaires:

Body Shape Questionnaire - 8C (BSQ-8C)

Body Shape Questionnaire - 8C (Evans & Dollan, 1993) is a short version of the BSQ (Cooper et al., 1986) measuring the extent of psychopathology of concerns about body

¹ BMI Classification according to National, Heart, Lung and Blood Institute. U.S. Department of Health & Human Services.

shape. The questions refer to the subject's state over the past four weeks. Higher values on the BSQ indicate more body dissatisfaction. It is a one-dimensional instrument, with results of reliability analyses showing high internal consistency (.93), excellent test-retest reliability ($r=.95$), and high convergent validity. The internal consistency, for our sample, measured by Cronbach's α , was $\alpha = .89$.

Multidimensional Body-Self Relations Questionnaire-Appearance Scales (MBSRQ-AS)

The Multidimensional Body-Self Relations Questionnaire-Appearance Scales (MBSRQ-AS; Cash, 2000) is a self-report inventory comprising five subscales with good psychometric properties for males and females: (a) Appearance Evaluation assesses feelings of satisfaction or dissatisfaction with one's appearance and higher scores indicate greater feelings of satisfaction; (b) Appearance Orientation assesses the degree of investment in one's appearance; (c) Body Areas Satisfaction assesses satisfaction or dissatisfaction with specific body areas, weight, height, and muscle tone and higher scores indicate greater body satisfaction; (d) Overweight Preoccupation assesses fat anxiety, weight vigilance, dieting, and eating restraint; and (e) Self-Classified Weight assesses how the person perceives his or her weight, from very underweight to very overweight. The MBSRQ has strong convergent, discriminant, and construct validities (Cash, 2000). Internal consistencies for our sample were $\alpha = .86$ for Appearance Evaluation, $\alpha = .78$ for Appearance Orientation, $\alpha = .79$ for Body Areas Satisfaction, $\alpha = .72$ for Overweight Preoccupation and $\alpha = .86$ for Self-classified Weight.

Existential Anxiety Questionnaire (EAQ)

The Existential Anxiety Questionnaire (EAQ; Weems et al., 2004) assess the critical domains and sub-concepts (death - fate, meaninglessness - emptiness, condemnation - guilt) outlined in Tillich's (1952) work. Results of reliability analyses indicate that the EAQ has adequate internal consistency ($\alpha = .71$), a two-week test-retest reliability ($r = .72$, $p < .001$) and a factor structure consistent with theory (Weems et al., 2004). In this study, the internal consistency was $\alpha = .71$.

Meaning in Life Questionnaire (MLQ)

The Meaning in Life Questionnaire (MLQ; Steger et al., 2006) assesses two dimensions of meaning in life - Presence and Search for Meaning in Life. The Presence of Meaning subscale measures how full respondents feel their lives are of meaning. The Search for Meaning subscale measures how engaged and motivated respondents are in efforts to find meaning or deepen their understanding of meaning in their lives. The MLQ has excellent reliability, test-retest stability, stable factor structure, and convergence among informants. Internal consistencies for our sample, were $\alpha = .84$ for presence and $\alpha = .84$ for search.

Satisfaction with Life Scale (SwLS)

The Satisfaction with Life Scale (SwLS; Diener et al., 1985) assesses an individual's global judgment of life satisfaction as a whole, providing an integrated judgment of how a person's life is going. It is one of the most widely used wellbeing measures, demonstrating good psychometric properties (Pavot & Diener, 2008). In this sample, the internal consistency was $\alpha = .83$.

Procedure

In translating the questionnaires, a forward and backward translation method was used. The English versions of the questionnaires were translated to Greek by a professional translator, followed by a back translation by another professional translator, and finally an evaluation and correction of discrepancies by a bilingual speaker. The questionnaires were administered in a pilot sample and feedback to ensure clarity of the questionnaires was asked. No major changes were made after this. We should note that, Meaning in Life Questionnaire (MLQ; Pezirkianidis et al., 2016) and Satisfaction with Life Scale (SwLS; Galanakis et al., 2017), were validated when our study was already well in progress. It is worth noticing that in our case, Cronbach alpha index for the MLQ and SwLS was very close to that obtained by Pezirkianidis et al. (2016) and Galanakis et al. (2017), respectively.

Adolescent participants were recruited from three high schools in Central Greece, chosen after deliberation and consent from the National Institute of Educational Policy and Ministry of Education -all of them located in urban area, the socioeconomic characteristics of which are similar to the country's average. All students enrolled were asked to participate on a voluntary basis and after parental consent. Questionnaires were completed during class time and supervised by the project's researchers in collaboration with teachers. Response rate was 39% among all students of the same age in the chosen schools.

The adult sample was drawn from the general Greek population, in major cities, administering snowball sampling. Participants were informed about the purpose of the study, the profile of the researchers, and the university conducting it through an explanatory note preceding the questionnaire.

Design of the research started in early 2016 and collection of sample data was completed in 2020, at the end of the economic crisis in Greece and before any pandemic effects took place.

Results

Data Analysis

To address the research hypotheses of this study, correlations, means testing, and multiple linear regression, including stepwise and ANCOVA analysis, were conducted to identify which of the variables corresponding to BSQ and the five dimensions of MBSRQ were valid predictors of Body Dissatisfaction, and how covariates like BMI, and factors as sex and age affected their predictability. Assessing the de-

Table 2. Pearson correlations Between BSQ and the Five Dimensions of MBSRQ-AS with Existential Anxiety, Satisfaction with Life and Meaning in Life.

	EAQ	SWLS	MLQ-S	MLQ-P
Body shape dissatisfaction	.31***	-.22***	.18***	-.22***
Appearance evaluation	-.09**	.24***	.03	.21***
Appearance orientation	.04	.09*	.16***	.02
Body areas satisfaction	-.25**	.39***	-.09**	.29***
Overweight preoccupation	.18***	-.12***	.16***	-.09**
Self-classified weight	.01	-.03	-.01	-.03

* $p < .05$; ** $p < .01$; *** $p < .001$.

Note. BSQ, Body Shape Questionnaire; MBSRQ-AS, Multidimensional Body-Self Relations Questionnaire-Appearance Scales; EAQ, Existential Anxiety Questionnaire; SWLS, Satisfaction with Life Scale; MLQ-S, Meaning in Life Questionnaire-Search; MLQ-P, Meaning in Life Questionnaire-Presence.

gree to which data met normality assumptions, all variables used in analyses conformed to normality conditions criteria suggested by Hair et al. (2010) and Byrne (2010). There was no evidence of multicollinearity since all cross correlations were lower than .55, indicating that no predictors were explaining the same construct.

Correlations

Pearson Product Moment correlations were carried out to assess the relationship of BSQ and the five dimensions of MBSRQ with Existential Anxiety (EA), Satisfaction with Life (SwL), Search for, and Presence of Meaning in Life (SfMiL, PoMiL) and BMI. As can be seen in Table 2 a) Body Shape Dissatisfaction and Overweight Preoccupation are positively correlated with i) EA and ii) SfMiL, and b) Appearance Evaluation and Body Areas Satisfaction with i) SwL and ii) PoMiL. The magnitudes of the significant correlations were small to moderate.

Importance of BMI and Age in making comparisons between genders

To test previously reported research results which show that body image and eating disorder psychopathology are influenced by Age and BMI (Runfola et al., 2013; Stevens et al., 2016), T-Test and ANCOVA were employed to examine differences in BSQ and MBSRQ variables between female and male participants, revealing that BMI and Age are confounding variables and should be taken into consideration. Specifically, without controlling for BMI and Age, statistically significant differences between genders were found for Body Dissatisfaction dimensions; female participants presented higher mean scores in Body Shape Dissatisfaction, Appearance Orientation, and Overweight Preoccupation, whereas males presented higher mean scores in Body Areas Satisfaction and BMI. When BMI and Age were controlled, Appearance Evaluation and Self-Classified Weight were added to the variables that show statistically significant differences between female and male participants. Detailed results, including effect sizes evaluated by Cohen's d and eta-squared (Cohen, 1988), are presented in Table 3.

Explanatory models of BSQ and MBSRQ

Explanatory models to interpret the effect of EA, SwL, SfMiL, PoMiL, BMI, Age and Sex on Body Shape Dissatisfaction (BSQ) and the five dimensions of MBSRQ, were developed applying a two-step process.

In the first step, significant explanatory variables for each case were identified, through stepwise regressions. Concerning our hypothesis that EA, SfMiL and BMI predict Body Dissatisfaction, results differentiated for each dependent body image variable. Regarding Body Shape Dissatisfaction, the following variables were significant: EA, BMI, Sex, Age, SwL ($R^2 = .34$, $F_{(5, 793)} = 81.56$, $p < .001$). For the rest of the dependent variables the corresponding explanatory variables and model's explanatory power were as follows: Body Areas Satisfaction: SwL, BMI, Sex, EA, BMI, PoMiL ($R^2 = .34$, $F_{(6, 792)} = 80.44$, $p < .001$), Overweight Preoccupation: BMI, Sex, SfMiL, Age and EA ($R^2 = .24$, $F_{(5, 793)} = 50.41$, $p < .001$), Self-Classified Weight: BMI, Sex and Age ($R^2 = .49$, $F_{(3, 795)} = 255.69$, $p < .001$). Regarding Appearance Evaluation and Appearance Orientation, the resulting models were statistically significant but showed low predictability 17% ($F_{(6, 792)} = 26.75$, $p < .001$) and 5% ($F_{(4, 794)} = 12.15$, $p < .001$) respectively.

In the second step, the models derived from step 1 were run through ANCOVA analysis to test significance of interaction between Age and Sex with the variables identified in step 1 taken as covariates. At this step, only models with rather large or large predictability over 24% (Cohen, 1988) in step 1 of the analysis were considered.

As can be seen in Table 4, results showed that: i) Regarding the first model (Body Shape Dissatisfaction), we observed that after controlling for the rest of the independent variables, the difference in Body Shape Dissatisfaction between female and male participants did not vary across age groups. The model explained 35% of the variance; ii) Concerning the second model (Body Areas Satisfaction), we noticed that the difference between female and male participants, also did not vary across age groups ($R^2 = .34$); iii) In the third model (Overweight Preoccupation), there was a significant interaction between sex and age groups, showing that differences in Overweight Preoccupation between female and male participants varied across age groups ($R^2 =$

Table 3. Comparison of Means (*M*) and Standard Deviations (*SD*) Between Females and Males Before and After Controlling for BMI and age (*N* = 799).

	Female <i>n</i> = 529 <i>M</i> (<i>SD</i>)	Male <i>n</i> = 270 <i>M</i> (<i>SD</i>)	No variables controlled (Independent sample T-test)			Controlling for BMI and Age (ANCOVA models)			
			<i>t</i> (797)	95% CI on MD [LL,UL]	Cohen's <i>d</i>	<i>F</i> (6, 792)	<i>B</i>	95% CI on <i>B</i> [LL,UL]	η^2
Body shape dissatisfaction	22.47 (8.34)	18.81 (8.38)	5.85***	[2.43, 4.88]	.44	45.56***	5.72***	[4.59, 6.85]	.11
Appearance evaluation	3.07 (.36)	3.11 (.38)	-1.31	[-.09, .02]	-.11	16.66***	-.09**	[-.14, -.32]	.01
Appearance orientation	3.29 (.38)	3.23 (.39)	2.19*	[.01, .11]	.16	17.73***	.09**	[.03, .14]	.01
Body areas satisfaction	3.52 (.57)	3.64 (.62)	-2.65**	[-.19, -.03]	-.19	25.09***	-.23***	[-.32, -.15]	.04
Overweight preoccupation	2.54 (.93)	2.15 (.89)	5.73***	[.26, .53]	.43	34.62***	.61***	[.48, .74]	.09
Self-classified weight	3.18 (.62)	3.17 (.64)	.22	[-.80, .09]	.02	127.85***	.23***	[.16, .30]	.05
BMI	22.94 (4.28)	24.94 (4.02)	-6.38***	[-2.62, 1.39]	-.48				

p* < .05, *p* < .01, ****p* < .001;

Note. LL, Lower Limit of Confidence Interval (CI); UL, Upper Limit of Confidence Interval (CI); MD, Mean Difference between males and females; B, unstandardized regression coefficient; BMI, Body Mass Index

Cohens' *d*: Measures for effect size; small = .20, medium = .50 and large = .80.

Eta-squared (η^2): Measures for effect size; small = .01, medium = .06 and large = .14.

.25); iv) Significant interaction was also observed regarding differences in model four (Self-Classified Weight) between sex and age groups ($R^2 = .51$).

The magnitude of the statistically significant interaction of Age and Sex was small, regarding Overweight Preoccupation and Self-Classified weight with $\eta^2 = .01$ and $\eta^2 = .03$ respectively.

Discussion

The purpose of the present study was to investigate the degree of association between Body Dissatisfaction and Existential Anxiety, Meaning in Life, and Satisfaction with Life. Results of the study provide significant evidence of the connection between these factors. A structured discussion of the findings is valuable in providing insight and guidance to practitioners in the field.

Our empirical results add to the study of issues concerning Existential Anxiety, which, despite the ample theoretical background available, is not often encountered in research literature regarding effects on eating disorders. Our first hypothesis was confirmed; Existential anxiety was found to be positively related to Body Dissatisfaction. The current study provides preliminary evidence that Existential Anxiety is linked to Body Shape Dissatisfaction (BSQ), and fat anxiety, weight vigilance, dieting, and restraint eating (Overweight Preoccupation), which are in accordance to previous findings that relate anorexia nervosa with existential concerns (Fox & Leung, 2009).

Traditional existential theory (i.e., Yalom, 1980), states that all individuals develop some form of existential anxiety at some point in their lives. Engaging with the fundamental questions of existence is a universal human experience and most people have formed beliefs around existential issues (Allan & Shearer, 2012). Therefore, considering existential issues and making sense of one's existence may be important for optimal human functioning (Allan & Shearer, 2012). Taking into consideration Existential theory and our findings, we suggest that existential issues should be integrated in counselling practice related to body image or eating issues, by including fundamental questions such as those studied in our research -fate or death, emptiness or meaninglessness, guilt or condemnation- that can be raised at any stage of human life. If such questions remain unresolved, they could lead to pathological responses (i.e., body shape dissatisfaction, eating disorder). Thus, counselling practice could focus on addressing existential anxiety, since according to Yalom (1980), the only way of dealing with existential issues, is by confronting them.

Another concept that may add value to the counselling experience concerns Meaning in Life. Our results complied with previous findings (Marco et al., 2017), showing positive correlation between Meaning in Life and Appearance Evaluation, and Body Areas Satisfaction. Also, a significant correlation was detected between Body Shape Dissatisfaction and a) Presence of and b) Search for Meaning in Life, showing that as Body Dissatisfaction increases, Search for Meaning increases, while Presence of Meaning in Life decreases; a finding that supports our first hypothesis that Presence of Meaning in Life will be negatively related to

Body Dissatisfaction. In addition, it is important to report that Presence of Meaning in Life predicted Body Areas Satisfaction, whereas Search for Meaning in Life predicted Overweight Preoccupation. Following claims that meaning in life constitutes a protective factor against eating disorders or body dissatisfaction (Góngora, 2014; Marco et al., 2017, 2019), and other studies that refer to the importance of considering meaning in life as a variable in the onset and maintenance of eating disorders (Marco et al., 2021), we suggest that the absence or low presence of Meaning in Life may be an important agent in formatting eating pathology. Since low meaning in life seems to be associated with psychopathology (Psarra & Kleftras, 2013) and the most important human motivation involves perceiving and experiencing that one's life is meaningful (Frankl, 1988), psychotherapeutic interventions should aim at developing meaning in life in individuals with eating pathology (Fava, 2016), or add meaning-centered therapy for eating disorder participants with low meaning in life (Marco et al., 2021).

Life satisfaction, which was also investigated in our study, can be affected by many different interconnected dimensions of wellness, and as a result, dissatisfaction in one dimension, can lead to dissatisfaction in another dimension (Myers & Sweeney, 2005). In the present study, Satisfaction with Life was found to be positively related to feelings of satisfaction with appearance (Appearance Evaluation) and specific body areas, weight, height, and muscle tone (Body Areas Satisfaction), whereas negatively related to Body Shape Dissatisfaction as stated in our initial hypothesis. Furthermore, our results were enhanced by the predictive role of Satisfaction with Life on Body Shape Dissatisfaction and Body Areas Satisfaction. Literature associates lower body dissatisfaction with a high level of satisfaction with life, indicating a protective role of the mentioned variable in predicting eating related symptoms or body dissatisfaction (Góngora, 2014). Also, recent studies reported lower satisfaction with life in participants with anorexia nervosa compared to individuals without eating disorders (van Doornik et al., 2021). Therefore, it would be important for counsellors to examine the influence of low satisfaction with life on the presence and/or persistence of eating disorder symptoms, in individuals confronting body image issues, as a relevant target for psychotherapy.

According to literature, experiencing body image dissatisfaction and/or engaging in harmful eating and body shape/weight regulation strategies is not limited only to females, as they appear in male adolescents and men as well (Burlaw & Shurts, 2013; Cohn & Lemberg, 2013). In this study, female participants presented higher scores in Body Shape Dissatisfaction, Appearance Orientation, Overweight Preoccupation, and Self-Classified Weight after controlling for BMI and Age. Large effect sizes regarding Body Shape Dissatisfaction and Overweight Preoccupation solidify our findings that women were more dissatisfied with their body shape, or they were more preoccupied with dieting, weight vigilance, and eating restraint. On the other hand, male participants presented higher Appearance Evaluation and Body Areas Satisfaction, after controlling for BMI and Age, although size effects were small and medium

Table 4. Multiple Regression Analysis Including Interaction of Age*Sex

Independent variables	Dependent variables											
	Body shape dissatisfaction			Body areas satisfaction			Overweight preoccupation			Self-classified weight		
	F	p	η^2	F	p	η^2	F	p	η^2	F	p	η^2
Existential anxiety	46.54	<.001	.056	10.58	.001	.013	14.34	<.001	.018	-	-	-
Satisfaction with life	15.73	<.001	.020	72.10	<.001	.084	-	-	-	-	-	-
Search for meaning	-	-	-	-	-	-	10.42	.001	.013	-	-	-
Presence of meaning	-	-	-	7.44	.007	.009	-	-	-	-	-	-
BMI	223.25	<.001	.221	151.86	<.001	.162	164.04	<.001	.173	737.56	<.001	.483
Sex	65.72	<.001	.077	24.51	<.001	.030	50.88	<.001	.061	21.19	<.001	.026
Age	21.51	<.001	.099	.64	.635	.003	3.41	.009	.017	4.99	.001	.025
Age*Sex	2.11	.078	.011	1.87	.114	.009	2.58	.036	.013	5.69	<.001	.028
R ²	.35			.34			.25			.51		
Adj. R ²	.34			.33			.24			.50		

Note. BMI, Body Mass Index

- Variables not included in each model

respectively. The role of the BMI and Age is crucial in our study, because without controlling for these two factors, differences between sexes regarding Appearance Evaluation and Self-Classified Weight did not appear as statistically significant. Our hypothesis that there will be no statistically significant differences between sexes, concerning body dissatisfaction variables, was partially confirmed.

Results from regression models shed more light on our hypothesis about the relationship between Existential Anxiety, Meaning in Life, Satisfaction with Life, and Body Dissatisfaction. Although we hypothesized that Existential Anxiety, Search for Meaning in Life, and BMI will be significant in predicting all Body Dissatisfaction variables, results varied among dependent body variables; one possible explanation may be that they address different aspects of Body Dissatisfaction. Thus, based on our models we suggest that a) Presence of Meaning in Life is a predictor for satisfaction with specific body parts, while Search for Meaning in Life for preoccupation with weight b) Existential Anxiety, BMI and Sex consist the three common prediction variables for body satisfaction or dissatisfaction or fat anxiety –as measured by Body Shape Dissatisfaction, Body Areas Satisfaction and Overweight Preoccupation- and c) BMI and Sex are also prediction variables for Self-Classified Weight.

Previous research reports differences between males and females regarding body image satisfaction, with women seeming to be more dissatisfied than men (Keating et al., 2016). Although disordered eating can occur even to older men (Mangweth-Matzek et al., 2016), women seem to be more dissatisfied, even in older ages (McGuinness & Taylor, 2016). Our results differentiated from our initial hypothesis, showing that differences between sexes in Body Shape Dissatisfaction and Body Areas Satisfaction were not significantly different across age groups, while differences in Overweight Preoccupation and Self-Classified Weight did vary with age, making interaction of age and sex a significant predictor. That is, age affected differences between sexes, regarding factors related to fat anxiety, weight vigilance, dieting, eating restraint and how one perceives their weight.

Overall, our results enhance existing knowledge about body dissatisfaction in Greece. Published work on the field is rather limited. Certain studies mainly report findings regarding young ages (i.e. Costarelli et al., 2010; Tsekoura et al., 2021), raising concerns that Greek adolescents are likely to experience high levels of body dissatisfaction (McCabe et al., 2011). Conclusions from our investigation support those concerns, especially if we take into consideration body dissatisfaction or eating pathology worldwide.

Limitations and Suggestions for Future Research

Some limitations, that do not affect the contribution of the study should be mentioned: a) sampling is not stratified regarding any demographics/factors, although the overall sample size is adequate and all age categories are represented, b) the sample is drawn from the general population, so results cannot be generalized to a clinical population, c) cultural aspects may affect the results, since the study was carried out with Greek participants, thus limiting the abil-

ity to make generalizations to other ethnicities, d) participants were drawn through two different procedures which may affected the reliability or the scores derived from scales as it may be the case of lower reliability score in the EAQ, e) measures used, though adapted into the Greek language bearing good internal consistency, are all self-reports and, therefore, effects of “social desirability” cannot be ruled out, and f) results have a correlational nature.

Despite the above limitations, it seems that the current study provides preliminary evidence that Body Dissatisfaction and Existential Anxiety are linked –an interesting finding for the prevention of eating disorders. Therefore, new studies, concerning the understanding of eating pathology, could focus on including existential variables in longitudinal quantitative and/or qualitative studies, employing clinical populations diagnosed with eating disorders of both sexes and all age ranges. Also, new research should focus on existential issues (e.g., search for or presence of meaning in life, existential anxiety, etc.) during counselling people diagnosed with an eating disorder, in order to observe the associations between body dissatisfaction and existential dimensions and identify changes occurring before and after counselling sessions. Moreover, counseling practice could integrate all these aspects and new studies be repeated after pandemic COVID-19 effects, in order to identify shifts.

Implications for Practice

Body image is a multidimensional concept, which reflects how people see, think, feel and act towards their bodies (Cash & Pruzinsky, 2002). These perceptions, thoughts, feelings, and behaviors can be positive or negative, and affect many aspects of psychosocial wellbeing and quality of life (Cash & Smolak, 2011). Considering all the socio-economic changes that Greece has undergone the last years, as discussed in the introduction, it may not be surprising that our findings on body image, are related to existential variables. Contemporary literature suggests that, an existential crisis may be different for people at different stages of development and different age groups. Existential issues exist within a society as well; an existential crisis is an internalized by-product of societal problems (Andrews, 2016).

Overall, we could say that our findings have important implications for Counselling Psychology. We showed that existential factors (i.e., existential anxiety, meaning in life) have significant impact on body dissatisfaction, enabling counsellors or mental health professionals, to integrate these factors in sessions with people confronting body image issues or eating problems and therefore enrich and deepen the counselling process. By focusing on these aspects, and taking into consideration the socio-cultural context of a person's life, counselling could support people improve overall life satisfaction. Therefore, although the existential theory, as well as the associated terminology have strong roots decades ago, their application on body image theory, provide a novel perspective on understanding and confronting related problems. Our sample was drawn from Greek population in the southern part of Europe, so results could be applicable in other European regions with similar sociocultural characteristics.

Summary and Conclusion

Body Dissatisfaction, which seems to be a key variable in the development of eating disorders, tends to be a common issue in Western population. Through this study, new variables emerged as important in the understanding of Body Dissatisfaction. A significant positive relation of Body Shape Dissatisfaction and Overweight Preoccupation with Existential Anxiety and Search for Meaning in Life became apparent. Satisfaction with Life was positively related to Appearance Evaluation, whereas negatively to Body Shape Dissatisfaction. Presence of Meaning in Life was identified as a predictive factor for Body Areas Satisfaction, and

Search for Meaning in Life for Overweight Preoccupation. Moreover, differences between sexes in Body Shape Dissatisfaction were not affected by age, while differences in Overweight Preoccupation were influenced by age. Therefore, counsellors could explore new perspectives by incorporating Existential Anxiety, Meaning in Life, and Satisfaction with Life dimensions in clinical practice, adding to the richness and depth of the counselling process.

Submitted: March 30, 2022 EET, Accepted: September 12, 2022 EET

References

- Allan, B. A., & Shearer, C. B. (2012). The scale for existential thinking. *International Journal of Transpersonal Studies*, 31(1), 21–37. <https://doi.org/10.24972/ijts.2012.31.1.21>
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Association. <https://doi.org/10.1176/appi.books.9780890425596>
- Andrews, M. (2016). The existential crisis. *Behavioral Development Bulletin*, 21(1), 104–109. <https://doi.org/10.1037/bdb0000014>
- 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>
- Bilali, A., Galanis, P., Velonakis, E., & Katostaras, T. (2010). Factors Associated with Abnormal Eating Attitudes among Greek Adolescents. *Journal of Nutrition Education and Behavior*, 42(5), 292–298. <https://doi.org/10.1016/j.jneb.2009.06.005>
- Burlew, L. D., & Shurts, W. M. (2013). Men and body image: Current issues and counseling implications. *Journal of Counseling & Development*, 91(4), 428–435. <https://doi.org/10.1002/j.1556-6676.2013.00114.x>
- Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Routledge.
- Cash, T. F. (2000). *The MBSRQ users' manual* (3rd ed.). Old Dominion University.
- Cash, T. F., & Pruzinsky, T. (1990). *Body Images: Development, deviance, and change*. Guilford Press.
- Cash, T. F., & Pruzinsky, T. (2002). Future challenges for body image theory, research and clinical practice. In T. F. Cash & T. Pruzinsky (Eds.), *Body image: A handbook of theory, research, and clinical practice* (2nd ed.). The Guilford Press.
- Cash, T. F., & Smolak, L. (2011). Understanding body images: Historical and contemporary perspectives. In T. F. Cash & L. Smolak (Eds.), *Body image: A handbook of science, practice, and prevention* (2nd ed., pp. 3–11). The Guilford Press.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum associates.
- Cohn, L., & Lemberg, R. (Eds.). (2013). *Current findings on males with eating disorders*. Routledge. <https://doi.org/10.4324/9780203495650>
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71–75. https://doi.org/10.1207/s15327752jpa4901_13
- Edwards, C., Tod, D., & Molnar, G. (2014). A systematic review of the drive for muscularity research area. *International Review of Sport and Exercise Psychology*, 7(1), 18–41. <https://doi.org/10.1080/1750984x.2013.847113>
- Fava, G. A. (2016). Well-being therapy: Current indications and emerging perspectives. *Psychotherapy and Psychosomatics*, 85(3), 136–145. <https://doi.org/10.1159/000444114>
- Fiske, L., Fallon, E. A., Blissmer, B., & Redding, C. A. (2014). Prevalence of body dissatisfaction among United States adults: Review and recommendations for future research. *Eating Behaviors*, 15(3), 357–365. <https://doi.org/10.1016/j.eatbeh.2014.04.010>
- Fox, A. P., & Leung, N. (2009). Existential well-being in younger and older people with anorexia nervosa: A preliminary investigation. *European Eating Disorders Review*, 17(1), 24–30. <https://doi.org/10.1002/erv.895>
- Frankl, V. E. (1988). *The will to meaning: Foundations and applications of logotherapy*. Penguin.
- Galanakis, M., Lakioti, A., Pezirkianidis, C., Karakasidou, I., & Stalikas, A. (2017). Reliability and validity of the Satisfaction with Life Scale (SwLS) in a Greek sample. *The International Journal of Humanities and Social Studies*, 5(2), 120–127.
- Góngora, V. C. (2014). Satisfaction with life, well-being, and meaning in life as protective factors of eating disorder symptoms and body dissatisfaction in adolescents. *Eating Disorders: The Journal of Treatment & Prevention*, 22(5), 435–449. <https://doi.org/10.1080/10640266.2014.931765>
- Hair, J., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Pearson Educational International.
- Janicic, A., & Bairaktari, M. (2014). Eating disorders: A report on the case of Greece. *Advances in Eating Disorders: Theory, Research & Practice*, 2(1), 97–103. <https://doi.org/10.1080/21662630.2013.801296>
- Karazsia, B. T., Murnen, S. K., & Tylka, T. L. (2017). Is body dissatisfaction changing across time? A cross-temporal meta-analysis. *Psychological Bulletin*, 143(3), 293–320. <https://doi.org/10.1037/bul0000081>
- Keating, C., Stephens, J., Thomas, N., Castle, D. J., & Rossell, S. L. (2016). Gender differences in weight-related and non-weight-related appearance concerns in a community sample. *Australian Journal of Psychology*, 68(1), 11–19. <https://doi.org/10.1111/ajpy.12092>
- Kostopoulou, E., Tsekoura, E., Fouzas, S., Gkentzi, D., Jelastopulu, E., & Varvarigou, A. (2021). Association of lifestyle factors with a high prevalence of overweight and obesity in Greek children aged 10–16 years. *Acta Paediatrica*, 110(12), 3356–3364. <https://doi.org/10.1111/apa.15960>
- Lucas, R. E., & Diener, E. (2009). Personality and subjective well-being. In E. Diener (Ed.), *The science of well-being: The collected works of Ed Diener* (pp. 75–102). Springer.
- Mangweth-Matzek, B., Kummer, K. K., & Pope, H. G. (2016). Eating disorder symptoms in middle-aged and older men. *International Journal of Eating Disorders*, 49(10), 953–957. <https://doi.org/10.1002/eat.22550>

- Marco, J. H., Cañabate, M., Martinez, C., Baños, R. M., Guillen, V., & Perez, S. (2021). Meaning in life mediates between emotional deregulation and eating disorders psychopathology: A research from the meaning-making model of eating disorders. *Frontiers in Psychology*, 12, 1–13. <https://doi.org/10.3389/fpsyg.2021.635742>
- Marco, J. H., Cañabate, M., & Pérez, S. (2019). Meaning in life is associated with the psychopathology of eating disorders: Differences depending on the diagnosis. *Eating Disorders*, 27(6), 550–564. <https://doi.org/10.1080/10640266.2018.1560852>
- Marco, J. H., Cañabate, M., Pérez, S., Llorca, G., & Taylor, J. E. (2017). Associations among meaning in life, body image, psychopathology, and suicide ideation in Spanish participants with eating disorders. *Journal of Clinical Psychology*, 73(12), 1768–1781. <https://doi.org/10.1002/jclp.22481>
- McCabe, M. P., Fuller-Tyszkiewicz, M., Mellor, D., Ricciardelli, L., Skouteris, H., & Mussap, A. (2011). Body satisfaction among adolescents in eight different countries. *Journal of Health Psychology*, 17(5), 693–701. <https://doi.org/10.1177/1359105311425274>
- McGuiness, S., & Taylor, J. E. (2016). Understanding body image dissatisfaction and disordered eating in midlife adults. *New Zealand Journal of Psychology*, 45(1), 4–12.
- Mousoulidou, M., Argyrides, M., & Ioannou, C. (2019). Body Image Differences Across the Life Span of Greek-Cypriot Women: An Investigation Examining Adolescence, Early and Middle Adulthood. *The European Journal of Counselling Psychology*, 8(1), 43–63. <https://doi.org/10.5964/ejcop.v8i1.178>
- Myers, J. E., & Sweeney, T. J. (2005). The wheel of wellness. In J. E. Myers & T. J. Sweeney (Eds.), *Counseling for wellness* (pp. 15–28). American Counselling Association.
- Nasser, M., Katzman, M. A., & Gordon, R. A. (2001). *Eating disorders and cultures in transition*. Brunner-Routledge.
- Pavot, W. G., & Diener, E. (2008). The Satisfaction With Life Scale and the emerging construct of life satisfaction. *The Journal of Positive Psychology*, 3(2), 137–152. <https://doi.org/10.1080/17439760701756946>
- Pezirkianidis, C., Galanakis, M., Karakasidou, I., & Stalikas, A. (2016). Validation of the Meaning in Life Questionnaire (MLQ) in a Greek sample. *Psychology*, 7(13), 1518–1530. <https://doi.org/10.4236/psych.2016.713148>
- Psarra, E., & Kleftras, G. (2013). Adaptation to physical disabilities: The role of meaning in life and depression. *The European Journal of Counselling Psychology*, 2(1), 79–99. <https://doi.org/10.5964/ejcop.v2i1.7>
- Rohde, P., Stice, E., & Marti, C. N. (2015). Development and predictive effects of eating disorder risk factors during adolescence: Implications for prevention efforts. *International Journal of Eating Disorders*, 48(2), 187–198. <https://doi.org/10.1002/eat.22270>
- Runfola, C. D., Von Holle, A., Trace, S. E., Brownley, K. A., Hofmeier, S. M., Gagne, D. A., & Bulik, C. M. (2013). Body dissatisfaction in women across the lifespan: Results of the UNC-SELF and Gender and Body Image (GABI) Studies. *European Eating Disorders Review*, 21(1), 52–59. <https://doi.org/10.1002/erv.2201>
- Schneider-Sliwa, R. (2006). Global and local forces in cities undergoing political change. *The GeoJournal Library*, 1, 1–8. https://doi.org/10.1007/1-4020-3867-4_1
- Slade, P. D. (1988). Body image in anorexia nervosa. *British Journal of Psychiatry*, 153(Suppl. 2), S20–S22. <https://doi.org/10.1192/s0007125000298930>
- Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The Meaning in Life Questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, 53(1), 80–93. <https://doi.org/10.1037/0022-0167.53.1.80>
- Stevens, S. D., Herbozo, S., Morrell, H. E., Schaefer, L. M., & Thompson, J. K. (2016). Adult and childhood weight influence body image and depression through weight stigmatization. *Journal of Health Psychology*, 22(8), 1084–1093. <https://doi.org/10.1177/1359105315624749>
- Stice, E., Marti, C. N., & Durant, S. (2011). Risk factors for onset of eating disorders: Evidence of multiple risk pathways from an 8-year prospective study. *Behaviour Research and Therapy*, 49(10), 622–627. <https://doi.org/10.1016/j.brat.2011.06.009>
- Tiggemann, M. (2004). Body image across the adult life span: 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)
- Tillich, P. (1952). *The courage to be*. Yale University Press.
- Tsekoura, E., Kostopoulou, E., Fouzas, S., Souris, E., Gkentzi, D., Jelastopulu, E., & Varvarigou, A. (2021). The association between obesity and the risk for development of eating disorders – A large-scale epidemiological study. *European Review for Medical & Pharmacological Sciences*, 25(19), 6051–6056. https://doi.org/10.26355/eurev_202110_26883
- van Doornik, S. F. W., Ostafin, B. D., Jonker, N. C., Glashouwer, K. A., & de Jong, P. J. (2021). Low satisfaction with normative life domains in adolescents with anorexia nervosa. *Clinical Psychology & Psychotherapy*, 28(5), 1266–1274. <https://doi.org/10.1002/cpp.2574>
- Weems, C. F., Costa, N. M., Dehon, C., & Berman, S. L. (2004). Paul Tillich's theory of existential anxiety: A preliminary conceptual and empirical examination. *Anxiety, Stress & Coping*, 17(4), 383–399. <https://doi.org/10.1080/10615800412331318616>
- Yalom, I. D. (1980). *Existential psychotherapy*. Basic Books.
- Yannakoulia, M., Matalas, A., & Grivetti, L. E. (2003). From frugality to disordered eating behavior: The case of Greece. In G. M. Ruggiero (Ed.), *Eating disorders in the Mediterranean area* (pp. 151–158). Nova Science Publishers, Inc.