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RESEARCH ARTICLE

SUBJECTIVE WELL-BEING AND ITS DETERMINANTS IN A SAMPLE OF ADOLESCENTS IN GREECE

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Abstract

Background: Health professionals are increasingly interested in subjective well-being (SWB) as it can enhance their understanding of the health consequences of an individual's physical, mental and cognitive state.

Method and Material: In a sample of 440 adolescent boys and girls (mean age 13.8 years), from 55 junior high schools in Athens (the capital city) and the greater Athens area in Greece, the association between personal characteristics and SWB was investigated. The latter was assessed by a modified version of the KIDSCREEN questionnaire and participants' scoring was expressed as the percentage of optimal SWB achieved. Linear regression models were applied to assess the association between socio-economic, personal and anthropometric characteristics of adolescents and the achieved SWB.

Results: Girls achieved a lower SWB score compared to boys (74.3 versus 77.4%, p=0.005). Girls reached lower scores in the dimensions of physical and psychological well-being, moods and emotions, self-perception, and autonomy. Overall, being a girl (β= -3.67, 95%CI: -5.78 to -1.57) of non-Greek origin (β=-3.65, 95%CI: -6.21 to -1.10), and member of a non-privileged household, was associated with lower subjective assessments of personal well-being. The feeling of lack of safety at personal level was also associated with lower SWB (β=-1.01, 95%CI: -1.38 to -0.64).

Conclusions: The recent unprecedented experience following the COVID-19 pandemic has not only affected several of the adolescents' characteristics evaluated in this study but has also irreparably altered aspects of their daily lives. The findings of the present study could serve as a starting point to assess subjective well-being in the aftermath of the pandemic.

Keywords: Subjective well-being, adolescence, socio-demographic characteristics, BMI, sedentary lifestyle.

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INTRODUCTION

The term subjective well-being (SWB) is used to describe the way people perceive prosperity and welfare in their lives overall as well as in specific domains (e.g. physical, social, psychological well-being).[1] It includes a person's emotional and cognitive evaluation of a wide range of aspects such as access to work or home, personal relationships, together with other subjective factors such as mental state and self-esteem.[2]

SWB has been related to the estimated quality of life, particularly with the Health-Related Quality of Life (HRQoL) and both terms have either been used interchangeably or as one indicative of the other. The SWB includes two main dimensions: a) the ability of individuals to act and function (determined by their objective health) and b) the welfare, i.e. the subjective component of the quality of life.[3] The increasing interest of health professionals in the SWB stems from the need of a profound understanding of the health consequences of an individual's physical, mental and cognitive state and has been suggested to complement clinical examinations in assessments of health.[4]

Adolescents are experiencing constant changes during to their transition to adulthood. Researchers investigating SWB are particularly interested in this population group, due to enhanced opportunities to promote health and shape attitudes towards health-related issues. Among adolescents, SWB has been positively associated with physical health, balanced dietary and exercise patterns, while it has been inversely associated with smoking, alcohol consumption and substance use.[5] In their systematic review Das et al.[6] noted that determinants of SBW include basic demographic and socioeconomic characteristics (the latter including income, educational attainment, ethnicity), issues related to health and functioning (e.g., obesity, physical activity, sedentary lifestyle etc.), as well as personality traits, social support, religion and culture, geography and infrastructure. Thus, the necessity to set an environment that would support the development and optimization of adolescents' physical, mental, and emotional function is imperative.[7]

In a survey of WHO Europe (2020) aiming to assess health-related behaviors among adolescents, indicators relevant to young individuals' health and social behavior were assessed over time. These indicators included SWB, obesity and body image, family support, exposure to bullying behaviors, as well as eating patterns, physical activity, and use of tobacco, alcohol and cannabis. According to this study an increased number of Greek adolescents (11-15 years old) reported multiple symptoms indicative of physical and mental conditions and the reported life satisfaction was low. In addition, indicators relevant to health promoting eating patterns and physical activity were lower compared to those of other European countries.[8] The family's socioeconomic characteristics and health status are interrelated as the health conditions of family members have been considered as an indicative of the family's socioeconomic status (SES),[9] while, at the same time, the family's positioning in the social ladder, which is associated with the adolescents' SWB, is an important determinant of their health.[10] The strong association between SWB and high family income has also been recently reported in a study of 1096 senior high school students aged from 14 to 25 years, residing in two regions in Ghana's Northern.[11] In a study from schools of the broader area of Athens-Greece, 714 adolescents attending the two last grades of Junior High School and the two last grades of High School, family appears to have an impact in SBW as adolescents reporting feeling close to their parents were more satisfied with their lives.[12]

The present work aims to assess the association between the SWB and socio-economic factors, anthropometric characteristics and the sedentary behavior in a sample of adolescents with mean age 14 years approximately in Athens and the greater Athens area. This analysis aims to enhance our understanding of Greek adolescents' perception of their well-being and shaping factors in order to improve the efficiency of health promoting strategies and actions addressing this population group in Greece.

METHODOLOGY

Overall, 532 adolescents aged 13 to 15 years, attending 55 junior high school in Athens and the Athens metropolitan area (Attica region) participated in the study. The sample was selected using a proportionally stratified random sampling method. Strata were

determined on the basis of administrative sectors. Schools represented clusters within each stratum and were randomly selected per stratum through the application of probability sampling proportional to the school's size. The data collection was approved by the Hellenic Ministry of Education and all students from each selected school were included in the sample. Following the informed consent to participate which was provided by the adolescents' parents or legal guardians, questionnaires were disseminated to all participants. In the present analysis, 25 adolescents were excluded due to missing information on the scale used to assess SWB and 65 adolescents were further excluded as they did not provide information to any of the following variables considered in the analysis: family conditions (single-parent family or living with two parents/legal guardians), the parental educational level attained, height and body weight. Hence, the present analysis relied on a sample of 440 adolescents, 200 boys and 240 girls. The analysis of the data has been approved by the Bioethics Committee of the National and Kapodistrian University of Athens.

Data collection and management

Self-administered questionnaires were used for data collection, fully respecting the adolescents' anonymity and data collection was carried out between September 2015 and June 2016. Questions referred to the adolescents' socio-demographic and anthropometric characteristics (gender, age, ethnicity, parental educational level, family status, self-reported height and body weight); family prosperity, assessed though the translated in Greek *Family Affluence Scale (FAS)*,[13] time spent in sedentary activities using the Greek version of *Adolescent Sedentary Activity Questionnaire"* (ASAQ),[14] internet use based on the scale *Online Communication and other Internet Function*,[15] and their perception of personal safety, using the Greek version of the *Personal Safety* scale.[16] The FAS questionnaire refers to items that the family owns (car ownership, children having their own unshared room, the number of PCs available in the household and the time adolescents spend on holiday). The ASAQ questionnaire on sedentary lifestyles includes 11 questions relevant to time (expressed in hours per week) spent sitting or in front of screens and in transportation separating school days from the weekend. Since, however, participants did not consistently complete the ASAQ, the generated information was available only in a subsample of adolescents and was considered in sensitivity analyses.

The questionnaire assessing the extent of internet use includes 8 questions on a 5-point Likert scale with the value of 1 corresponding to "less than once a week" and the value of 5 to "almost daily". A score was constructed by adding the points of the 8 questions ranging from 8 (low internet use) to 40 (high internet use). The questionnaire on self-perceived safety at the individual level included 5 questions on a 5-point Likert scale answering to questions like "how often do you …". A value of 1 corresponds to "Never" and a value of 5 to "Always". In four out of the 5 questions, the answer "always" had a negative dimension thus reflecting feelings of unsafety. Therefore, the one and only question which had the opposite meaning, was inverted and a score was constructed by adding up the points of all 5 questions. The final score ranged from 5 (feeling safe) to 25 (feeling unsafe). For interpretation purposes this score was renamed to "feeling of personal unsafety score". On average study participants needed 30-40 minutes to reply to the questionnaires.

In the present analysis, the 10-point FAS scale for measuring family wealth was classified into three categories: low (0-4), intermediate (5-6) or high (7-9). The parents' educational attainment was categorized into two groups: low/middle (both parents had completed secondary education) and high (at least one parent was a college or university graduate). Regarding their family status, teenagers reported whether they lived with both parents/legal guardians or with one (single-parent family). The ethnicity was categorized as Greek/Cypriot or other. Body weight and height were self-reported and BMI was calculated as weight in kilograms divided by the square of the height in meters.

Subjective well-being

To assess the SWB, the KIDSCREEN-52 scale,[17] harmonized in Greek, was used. In the present data collection, six questions on school bullying were omitted as they were not relevant to the

objective of the present study. The scale thus included 46 questions and, hereafter, is called KIDSCREEN-46. The questionnaire includes questions expressed on a 5-point Likert scale and covers the following nine dimensions: (i) physical well-being (5 questions), (ii) psychological well-being (6 questions), (iii) moods and emotions (7 questions), (iv) self-perception (5 questions), (v) autonomy (5 questions), (vi) parental relations and home life (6 questions), (vii) financial resources (3 questions), (viii) peers and social support (6 questions) and (ix) school environment (3 questions). In general, higher scores reflect increased satisfaction. Ten questions include a negative connotation and, in this case, higher scores indicated lower satisfaction (1 question from the dimension on "physical well-being", 6 questions from the "moods and emotions" and 3 questions from the "self-perception"). To facilitate comparison, these questions were re-coded so that higher score indicated greater satisfaction and were subsequently combined with the remaining ones. The estimated overall score ranged from 46 (low subjective well-being) to 230 (optimal subjective well-being). For standardization purposes that would enhance the scale's interpretation, the sum was divided by 230 (highest value) to reflect the percentage (%) of optimal subjective well-being achieved.

Statistical analysis

Participants' characteristics are presented as frequencies (N, %) for qualitative variables and as mean and standard deviation (SD) for quantitative ones. The chi-square test (χ^2) was used to compare qualitative variables and the t-test or the non-parametric Mann-Whitney test for non-normal distributions to evaluate the statistical significance of difference between means of two groups. Pearson's r correlation coefficients were calculated to assess the correlation between the dimensions of KIDSCREEN-46.

Univariate and multivariate linear regression models were applied to evaluate how the subjective well-being (KIDSCREEN-46, expressed in percentages of optimal SWB achieved) was related to the teenagers' personal characteristics, family conditions and lifestyle choices. In particular, model co-variates included: gender (categorically), ethnicity (2 groups, categorically), family affluence (3 groups based on the FAS, categorically), parental educational attainment (2 groups, categorically), family status (2 groups, categorically), BMI (in kg/m^2, continuously), extent of internet use (continuously), feeling of personal unsafety (based on the *Personal Safety* scale, continuously) and junior high school grade (3 groups, categorically). Age was not introduced to the multiple regression model due to collinearity with the school grade. The statistical significance level was set at 0.05 (p=0.05) and analysis was performed with the SPSSv25 (IBM SPSS Statistics for Windows. Version 25.0, Armonk, NY: IBM Corp) statistical software.

RESULTS

The characteristics of the study population, overall and by gender are presented in **Table 1**. The sample consists of 440 adolescents (55% females) with mean age 13.8 (SD=1.0) years. The sample of individuals included in the present analysis was not significantly statistically different from the sample of 90 adolescents excluded in terms of age, sex, nationality and school grade distribution, and average BMI (data not shown). Overall, the junior high schoolers' social ranking according to the *Family Affluence Scale* was intermediate [mean (SD)=5.1(1.8)], as most adolescents (38.4%) scored low and only one out of four (24.3%) attained a high score. The parental educational level was high for most adolescents (66.8%), while one out of 3 participants had parents with low or medium education (33.2%). One out of 5 adolescents lived in a single-parent household (19.3%). Statistically significant differences were observed in the use of the internet, with boys being more frequently engaged in internet use than girls (p<0.001).

Table 2 presents the mean (±SD), median and range of scores estimated by the KIDSCREEN-46 scale (higher score denotes greater satisfaction) in total and per dimension. Adolescents in this study reached a mean score of 75.7% of optimal total SWB (scored 174.2 out of 230 points) with the dimensions on parental relations and home life (mean= 23.7, 79% of the optimal possible score in this dimension), as well as peers and social support (mean=23.7, 79% of the respective optimal) contributing more to the overall SWB, while on the contrary, the dimensions on autonomy (mean 17.3, 69.2% of the respective optimal), financial

resources (mean= 10.9, 72.7% of the respective optimal) and school environment (mean= 10, 66.7% of the respective optimal) contributed less to the overall score of SWB. It is noteworthy that the lower contribution of the dimension on autonomy was more apparent among girls (p<0.001). Boys achieved a higher overall mean score than girls (77.4 versus 74.3%). The lower SWB mean score observed among girls was attributed to the dimensions related to the physical and psychological well-being, moods and emotions, self-perception and autonomy (all respective p-values were <0.05).

The correlations between overall SWB score and each of its nine dimensions, as well as other related factors, including internet use and the feeling of lack of safety are presented in **Table 3**. The SWB is strongly positively correlated with the psychological well-being (r=0.85, p<0.001), moods and emotions (r=0.79, p<0.001) as well as parental relations and home life (r=0.78, p<0.001) and less strongly with financial resources (r=0.58, p<0.001) and school environment (r=0.60, p<0.001). Among specific dimensions, the psychological well-being, the moods and emotions, as well as the parental relations and home life were all positively and strongly correlated. The overall SWB score was negatively correlated with the feeling of personal unsafety (r=-0.25,p<0.001) meaning that the more unsafe an adolescent feels the lower his/her SWB. This dimension was substantially negatively correlated with all other dimensions of SWB except autonomy, peers and social support.

Table 4 presents the results of univariate and multivariate linear regression analyses evaluating the association between the adolescents' score in the SWB scale (expressed as percentage of optimal SWB achieved) and participants' characteristics. In the univariate analyses and notwithstanding mutual confounding among the variables considered, the SWB was significantly positively associated with the *Family Affluence Scale* (intermediate category: p=0.001, high category: p=0.001), and was negatively associated with being a girl (p=0.004), or being of ethnicity other than Greek or Cypriot (p<0.001), with the feeling of personal unsafety (p<0.001) and BMI (p=0.017). The multivariate linear regression analysis confirmed the crude results and revealed additional associations. Hence, controlling for possible confounders, the SWB scores were lower among girls compared to boys (β= -3.74 and 95%CI: -5.85 to -1.64), adolescents of higher BMI (β = -0.44 and 95% CI: -0.75 to -0.12) and of non-Greek or Cypriot ethnicities (β = -3.62 and 95%CI: -6.18 to -1.07). Furthermore, adolescents of lower socioeconomic status as indicated by their scoring in the *FAS* and also not feeling safe at personal level (β = -1.00 and 95%CI: -1.36 to -0.63) reported lower SWB scores as compared to their corresponding counterparts. This analysis was repeated including replies provided to the ASAQ on sedentary lifestyle. Time spent in sedentary activities was introduced in the multivariate model either continuously (with the extra missing values) or categorically including a group of missing data and results did not change.

DISCUSSION

In a sample of 440 adolescents (55% girls, mean age 13.8 years) from 55 junior high schools in Athens (the capital city) and its metropolitan area, personal characteristics associated with lower scoring in a scale assessing SWB were identified. Being a girl, or of non-Greek origin, member of a non-privileged household and of higher BMI were all associated with lower subjective assessments of personal well-being. Feeling lack of safety at personal level was also associated with lower SWB.

Gender differences in the feeling of well-being have been commonly reported.[18,19] According to Kaye-Tzadok et al.,[20] the self-reported SWB seems to be more driven by relational factors among girls, while SWB was more driven by perceived academic achievement among boys; yet the nature, causes and effects of these differences remain unclear. In our study, the lower SWB reported by girls were mainly driven by lower perception of physical and psychological well-being, mood and emotions, self-perception and autonomy. Furthermore, BMI was inversely associated with SWB. This finding is in line with the existing literature, according to which obese individuals, and adolescents in particular, are often stigmatized in several domains of their daily life.[21] Next to its possible impact on personal life satisfaction, overweight and obesity are major public health issues associated with chronic diseases.[22]

The family's positioning on the social ladder has also been associated with SWB. In our study, the highest socioeconomic status of the family, based on their scoring on the FAS, was associated

with approximately 2-3% higher SWB. Ragnarsdottir et al.[23] report low family income and unsupportive family environment as significant determinants of low SWB. Varga et al.[24] reported substantial correlations between low socioeconomic status of the family and adolescents' mental health and SWB was found to be positively associated with the affluence of the adolescents' family.

In our study non-Greek origin was associated with an approximately 4% reduction in the SWB. Aldridge et al.[25] highlight the importance of the adolescents' ethnic identity and its long-term consequences in their mental and physical health, which are affected by challenges of integration in the school environment (such as bullying, acceptance by their teachers and classmates), which can affect their performance and feeling of satisfaction.

The sedentary behavior among adolescents has been steadily increasing over the years.[26] In the present study, boys reported engaging less time per week in physical activities compared to girls. In particular, boys reported longer internet use compared to girls and also spending two full days per week in sedentary activities, such as television-viewing, computer use, studying, out-of-school-hours tutoring. Physical in activity and time spent sitting have been identified as the factors most strongly associated with obesity and unhealthy lifestyle habits later in life.[27] Time spent on watching TV has been associated with reduced physical activity and unhealthy dietary patterns, leading to weight gain.[28] Excessive internet use can affect the health-related behaviors of adolescents, such as their level of physical activity, dietary habits, sleep patterns, and promote a sedentary lifestyle.[29]

The COVID-19 pandemic has had a significant impact on adolescents' everyday life, and especially on teenagers' internet use and psychosocial well-being. According to Fernandes et al.,[30] the increased internet use during the pandemic has subsequently been associated with compulsive behaviors and symptoms of loneliness and depression. Furthermore, adolescents are more vulnerable to social media use, which has been associated with decreased life satisfaction.[31]

The main strength of the present study lies on the fact that it is one of a few studies in undertaken in Greece and aiming to evaluate comprehensively the association between SWB and socioeconomic factors, anthropometric characteristics and sedentary lifestyle among the adolescents. The use of a composite score further provides a holistic measure of SWB capturing the multifaceted nature of the construct and simplifies the interpretation of results. The study is however limited by its cross-sectional nature, which limits the possibility of causal inferences. The SWB was evaluated through a version of the KIDSCREEN scale, which has been harmonized and is widely applied for measuring health-related quality of life in Greek populations. Nonetheless, the questionnaires used to assess family prosperity, sedentary behavior and safety have been adapted to be used in Greek individuals, as simple translations, but have not been validated for their reliability and validity.

In conclusion, in a large sample of junior high school students in Athens, Greece higher SWB was reported by boys, adolescents of Greek origin and members of affluent families, who have a lower BMI and were more active in their daily life. The recent unprecedented experience following the COVID-19 pandemic has not only affected several of the adolescents' characteristics evaluated in this study, but has also irreparably impacted their psychology and several aspects of their daily life.[32]

Hence, the present study can be used as a starting point to assess SWB in the aftermath of the pandemic. Overall, our findings can be useful in designing, implementing and monitoring targeted public health promoting strategies following a comprehensive and sustainable approach recognizing the adolescents' multiple and variable needs.

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ANNEX

TABLE 1. Descriptive characteristics of study participants overall and by gender.

	Total		**Boys**		**Girls**		***p-value*[1]**
	N = 440		**N = 200**		**N = 240**		
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**	
Age (years)	13.8	1.0	13.8	1.0	13.7	1.0	0.361
BMI(kg/m^2)	20.2	3.2	20.7	3.5	19.9	2.9	**0.011**
Family Affluence Scale score	5.1	1.8	5.2	1.7	5.1	2.0	0.738
Extent of Internet use score	21.6	6.4	23.6	6.9	19.9	5.4	**<0.001**
Feeling of personal unsafety score[2]	8.3	2.8	8.5	3.0	8.1	2.6	0.124
	N	**%**	**N**	**%**	**N**	**%**	
Family Affluence Scale in categories							0.553
Low(0-4)	169	38.4	74	37.0	95	39.6	
Intermediate(5-6)	164	37.3	80	40.0	84	35.0	
High(7-9)	107	24.3	46	23.0	64	25.4	
Junior high school grades							0.336
1stGrade	118	26.8	47	23.5	71	29.6	
2ndGrade	178	40.5	83	41.5	95	39.6	
3rdGrade	144	32.7	70	35.0	74	30.8	
Ethnicity							0.652
Greek/Greek Cypriots	321	73.0	148	74.0	173	72.1	
Other	119	27.0	52	26.0	67	27.9	
Parental educational attainment							0.346
Low or medium	146	33.2	71	35.5	75	31.3	
High.at least one of them	294	66.8	129	64.5	165	68.7	
Living with two parents/ legal guardi-ans							0.877
No (single-parent)	85	19.3	38	19.0	47	19.6	
Yes	355	80.7	162	81.0	193	80.4	

BMI: Body Mass Index SD: Standard Deviation

[1] p-value for statistical significance was calculated using chi-square test (χ^2) , t-test or the non-parametric Mann-Whitney test.

[2] Higher values of the score reflect lower feeling of safety.

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TABLE 2. Mean and standard deviation (SD) of the score at the KIDSCREEN-46 scale (expressed absolute score and as %) overall and by its dimension (expressed as absolute scores). Results of the total study sample of 440 adolescents and by gender

	Total(N=440)						Boys (N=200)		Girls (N=240)		
	Mean	***SD***	***Median***	***min***	***max***		**Mean**	***SD***	**Mean**	***SD***	***p-value[1] difference***
Overall subjective well-being (KID-SCREEN-46) – expressed as %	75.7%[2]	11.3%[2]	78%[2]	25.2%[2]	100%[2]		**77.4%**[2]	10.5%[2]	**74.3%**[2]	11.8%[2]	**0.005**
Overall subjective well-being (KID-SCREEN-46) ***(sum of i to ix)***	174.2 (75.7%[2])	26.1	178	58	230		**178.0**	24.1	**171.0**	27.2	**0.005**
(i) Physical well-being[3]	19.0 (76.0%[2])	3.3	19	5	25		**19.5**	3.1	**18.5**	3.5	**0.001**
(ii) Psychological well-being	23.3 (77.7%[2])	4.7	24	6	30		**24.0**	4.3	**22.8**	5.0	**0.007**
(iii)Moods and emotions	27.2 (77.7%[2])	5.4	28	7	35		**28.0**	4.8	**26.5**	5.7	**0.002**
(iv) Self-perception	19.1 (76.4%[2])	4.2	20	5	25		**19.7**	3.8	**18.6**	4.5	**0.004**
(v) Autonomy	17.3 (69.2%[2])	4.3	17	5	25		**18.3**	4.2	**16.4**	4.1	**<0.001**
(vi) Parental relations and home life	23.7 (79.0%[2])	4.9	25	6	30		**24.1**	4.6	**23.3**	5.2	0.093
(vii) Financial resources	10.9 (72.7%[2])	2.9	11	3	15		**11.0**	2.6	**10.9**	3.1	0.541
(viii) Peers and social support	23.7 (79.0%[2])	4.8	24	6	30		**23.4**	5.2	**23.9**	4.6	0.284
(ix) School environment	10.0 (66.7%[2])	2.5	10	3	15		**9.8**	2.5	**10.1**	2.5	0.232

SD: Standard Deviation

[1] p-value for statistical significance of the difference in means between boys and girls was calculated using t-test.

[2] Reflect the percentage out of the total respective score.

[3] Negatively formulated questions of dimensions: (i), (iii) and (iv) were inverted to be in the same direction.

TABLE 3. Correlation coefficients (Pearson's r) between overall subjective well-being and its sub-dimensions or socio-economic and personal characteristics

	Overall subjective well-being	Physical well-being	Psychological well-being	Moods and emotions	Self-perception	Autonomy	Parental relations and home life	Financial resources	Peers and social support	School environment	Extent of internet use score
Overall subjective well-being (KIDSCREEN-46)											
Physical well-being	0.63***										
Psychological well-being	0.85***	0.54***									
Moods and emotions	0.79***	0.43***	0.69***								
Self-perception	0.66***	0.43***	0.48***	0.53***							
Autonomy	0.64***	0.22***	0.48***	0.40***	0.29***						
Parental relations and home life	0.78***	0.39***	0.63***	0.57***	0.41***	0.43***					
Financial resources	0.58***	0.31***	0.40***	0.32***	0.33***	0.34***	0.44***				
Peers and social support	0.65***	0.29***	0.50***	0.36***	0.27***	0.53***	0.40***	0.35***			
School environment	0.60***	0.42***	0.48***	0.46***	0.39***	0.19***	0.47***	0.32***	0.23***		
Extent of internet use score	0.00	-0.09*	0.00	-0.05	-0.12**	0.21***	-0.07	0.07	0.16***	-0.21***	
Feeling of personal unsafety score[1]	-0.25***	-0.12**	-0.17***	-0.26***	-0.17***	-0.06	-0.23***	-0.20***	-0.08	-0.29***	0.16***

*p<0.05, **p<0.01, ***p<0.001

[1]Higher values of the score reflect lower feeling of safety.

TABLE 4. Univariate and multivariate linear regression[1] analysis between overall subjective well-being score (expressed as %) and adolescents' characteristics in a sample of 440 adolescents.

	Univariate linear regression		Multivariate linear regression[1]	
	β (95%CI)	**p**	**β (95%CI)**	**p**
Gender				
Boy	Reference			
Girl	-3.07 (-5.19 to -0.96)	**0.004**	-3.74 (- 5.85 to -1.64)	**0.001**
Score at the Family Affluence Scale				
Low (0-4)	Reference			
Intermediate (5-6)	4.11 (1.71 to 6.52)	**0.001**	2.32 (-0.06 to 4.70)	**0.056**
High (7-9)	5.51 (1.80 to 7.22)	**0.001**	3.08 (0.29 to 5.87)	**0.031**
Junior high school grades				
1st Grade	Reference			
2nd Grade	-0.16 (-2.80 to 2.48)	0.906	-0.01 (-2.53 to 2.51)	0.997
3rd Grade	-1.93 (-4.70 to 0.83)	0.170	-1.18 (-3.81 to 1.45)	0.379
Ethnicity				
Greek/ Greek Cypriots	Reference			
Other	-4.61 (-7.00 to -2.26)	**<0.001**	-3.62 (-6.18 to -1.07)	**0.006**
Parental educational attainment				
Low or medium	Reference			
High at least one of them	1.21 (-1.04 to 3.46)	0.292	-0.95 (-3.33 to 1.44)	0.435
Living with parents/legal guardians				
No	Reference			
Yes	1.52 (-1.17 to 4.21)	0.268	0.46 (-2.08 to 3.01)	0.720
Extent of internet use score (8q.)	0.01 (-0.16 to 0.17)	0.956	-0.01 (-0.18 to 0.16)	0.919
Feeling of personal unsafety score (5q.)[1]	-1.09 (-1.46 to -0.72)	**<0.001**	-1.00 (-1.36 to -0.63)	**<0.001**
BMI (kg/m^2)	-0.40 (-0.73 to -0.07)	**0.017**	-0.44 (-0.75 to -0.12)	**0.007**

[1]Model co-variates included: gender (categorically), ethnicity (2 groups, categorically), family affluence (3 groups based on the FAS, categorically), parental educational attainment (2 groups, categorically), family status (2 groups, categorically), BMI (in kg/m^2, continuously), extent of internet use (continuously), feeling of personal unsafety (based on the Personal Safety scale, continuously) and junior high school grade (3 groups, categorically).

[2] Higher values of the score reflect lower feeling of safety.