

RESEARCH ARTICLE

Exploring the mediating role of student commitment in the relationship between life satisfaction and general well-being in university students

Murat Yıldırım^{1,2*}, Zeynep Feride Olcay³, Güfte Caner Akın^{4,5}, Derya Çevik Taşdemir^{6,7}

¹ Department of Psychology, Faculty of Science and Letters, Agri Ibrahim Cecen University, 04000 Ağrı, Türkiye

² Department of Social and Educational Sciences, Lebanese American University, 1102 2801 Beirut, Lebanon

³ Department of Occupational Health and Safety, Istanbul Aydın University, 34295 İstanbul, Türkiye

⁴ Istanbul Gelisim University, Vocational School, Department of Property Protection and Security, 34310, Istanbul, Türkiye

⁵ Istanbul Gelisim University, Occupational Safety and Health Application and Research Center, 34310 Istanbul, Türkiye

⁶ Gaziantep University, Vocational School, Department of Property Protection and Safety, 27310 Gaziantep, Türkiye

⁷ Gaziantep University, Vocational School, Department of Management and Organization, 27310 Gaziantep, Türkiye

* **Corresponding author:** Murat Yıldırım, muratyildirim@agri.edu.tr, muratyildirimphd@gmail.com

ABSTRACT

Recently, the educational approaches in Turkey were rapidly transformed, shifting to hybrid education under official directives. The shift, initially from traditional to distance education and then to a hybrid model, significantly impacted the well-being of university students who had already been affected by the challenges posed by the ongoing COVID-19 pandemic and faced further social and psychological consequences. The present study aimed to investigate the mediating role of student commitment in the relationship between life satisfaction and general well-being in university students. Employing a snowball sampling method, conducted an online survey to gather data from students. The students were instructed to complete self-report questionnaires related to their commitment to university, life satisfaction, and well-being. Participants were 416 university students from two foundations and one public university in Turkey. In the first stage of the study, the construct validity of the measurement model was tested by conducting validity and reliability analyses on an item and factor basis. In the second stage, structural equation model analysis was applied and the fit values of the tested model were reported. The results showed that student commitment to higher education plays a partially mediating role in the relationship between life satisfaction and general well-being. The results suggest the significance of cultivating conditions that not only bolster life satisfaction but also promote university commitment, thereby enhancing the overall well-being of university students.

Keywords: work psychology; general well-being; life satisfaction; student commitment; mediating; university students

1. Introduction

Life satisfaction and overall well-being of college students have become a topic of interest that has a

ARTICLE INFO

Received: 16 October 2023 | Accepted: 22 December 2023 | Available online: 4 February 2024

CITATION

Yıldırım M, Olcay ZF, Akın GC, et al. Exploring the mediating role of student commitment in the relationship between life satisfaction and general well-being in university students. *Environment and Social Psychology* 2024; 9(5): 2177. doi: 10.54517/esp.v9i5.2177

COPYRIGHT

Copyright © 2024 by author(s). *Environment and Social Psychology* is published by Asia Pacific Academy of Science Pte. Ltd. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/>), permitting distribution and reproduction in any medium, provided the original work is cited.

significant impact on an individual's psychosocial functioning^[1,2]. University education is considered an important stage that affects individuals' personal and professional development. In this process, students' life satisfaction and general well-being levels can be affected by personal and social factors as well as the educational environment. The general well-being of students has become a priority in higher education policy. It is widely accepted that general well-being is essential for effective learning^[3]. Developing our understanding of student well-being and its antecedents is essential to explaining and understanding student well-being^[4]. In 2018, the Minister of State for Universities, Science, Research and Innovation in the United Kingdom urged all universities to prioritize the mental health and well-being of students^[5]. In this direction, institutions exhibiting good practices throughout the university led to the development of the "University Mental Health Statement"^[6,7]. It is known that students in higher education face psychological and emotional problems of depression and burnout^[8]. The prevalence of poor mental health among university students can be as high as 51% in some countries^[9].

This study focused on whether well-being acts as a predictor of life satisfaction. In this context, the study examines whether the general well-being of university students affects their general life satisfaction, whether university commitment plays a mediating role in this positive relationship, and how these occur. The research aims to fill a gap in the literature by determining the overall life satisfaction of university students and concurrently examining the factors influencing general life satisfaction, along with the role of university commitment. The study seeks to contribute uniquely by focusing on understanding the relationship between general life satisfaction and university commitment and exploring potential mediating variables. By doing so, the research addresses a specific void in the literature concerning a better understanding of the relationships between life satisfaction, university commitment, and potential mediating factors among university students.

1.1. General well-being

There is no consensus around a single definition of well-being, but there is a general agreement that well-being includes at least the presence of positive emotions and moods (e.g., satisfaction, happiness) and the absence of negative emotions (e.g., depression)^[10,11]. General well-being was described as "the experience of being well"^[12]. Mostly, it focuses on constructs such as development, psychological capital, hope and healthy lifestyle behaviours, as opposed to negative factors such as stress, depression, anxiety and poor health^[13-15]. It is also defined as the ability of a person to take valuable actions and reach the state of being valuable^[16]. Well-being is a positive concept that reflects individuals' overall state in life, encompassing their subjective evaluations of social, health, and financial aspects^[17]. In the hedonist way of thinking, it is emphasized that mental and spiritual pleasures increase well-being along with bodily pleasures^[18].

1.2. Life satisfaction

Life satisfaction comes first among the basic elements that people should have to be happy in their lives and gain some meaning in their lives^[19]. According to Diener and Seligman^[20], life satisfaction is defined as a collective whole in all its aspects. Life satisfaction is a general evaluation of one's feelings and attitudes about life, changing from negative to positive in a certain period^[21]. Life satisfaction is a dynamic structure and various factors were found to affect life satisfaction^[22].

Life satisfaction is an important issue for university students, as it is for all age groups. Most students who gain college admission, attend school in a city different from where they live. This situation requires students to adapt to a new life and may cause significant changes and biopsychosocial problems in the lives of many young people^[23,24]. This situation is expected to negatively affect the life satisfaction and general well-being of university students. It is predicted that students who experience higher levels of life satisfaction will have a higher level of general well-being and a higher level of student commitment.

1.3. Student commitment

The concept of commitment refers to emotional factors that include the acceptance of interests, beliefs and positive attitudes towards certain things^[25]. It is the attitude of a person towards his/her job that includes beliefs and behavioural intentions^[26]. Commitment is a factor influencing student retention in higher education^[27,28]. Student commitment provides important inferences about the behaviour of students at the university^[29]. Student commitment has been defined in various ways. Student commitment includes the student's general impression, satisfaction, sense of belonging and quality perception, and identification with a particular institution^[30-32]. While students' identification with the school based on their experiences can be expressed as the bond they establish or affective reactions, it is seen in the literature that student commitment is handled within the framework of student participation, involvement, and harmony based on organizational commitment^[29]. Therefore, it is thought that student commitment may affect health and increase general well-being by increasing the level of social support.

1.4. Present study

Güney^[33] stated that life satisfaction and psychological well-being are strongly related. People with poor mental health will not be satisfied with their lives. People may have their own needs, desires and wishes, so all these factors play a vital role in determining each individual's life satisfaction criteria differently^[34]. Huebner^[35] suggested that positive psychological health is strongly associated with high levels of life satisfaction. Hagenauer et al.^[4] argued that students' overall life satisfaction is related to general well-being and work engagement, with partial mediation between them.

Student engagement predicts a variety of long-term positive outcomes, such as consistency in study methods, better employment opportunities, positive self-perception and well-being, and fewer depressive symptoms^[36-38]. Thus, participation can have positive, far-reaching consequences even outside the educational context. Hagenauer et al.^[4], found that students' overall life satisfaction was associated with general well-being and student engagement, with partial mediation between them^[39]. Boulton et al.^[40] argued for a feedback loop in which increased student engagement improves academic performance, which in turn increases overall well-being in students. Wong et al.^[41], found that student engagement is positively associated with academic achievement and subjective well-being.

As the study has contributed to the academic discourse on the determinants of general life satisfaction among university students and the mediating role played by university commitment, it has advanced our comprehension of the interconnections within these variables within the academic context. The exploration of these relationships addresses a discernible gap in the current literature, offering valuable information about the psychological well-being of university students and the factors that impact their satisfaction levels. Therefore, the purpose of the study was to examine the mediating role of student commitment in the relationship between life satisfaction and general well-being among university students. The following hypotheses are formulated based on the evidence provided:

H1: Life satisfaction has positive predictive effects on student commitment and general well-being.

H2: Student commitment has a positive predictive effect on general well-being.

H3: Student commitment serves as a mediator in the relationship between life satisfaction and general well-being.

2. Method

2.1. General well-being scale

The well-being assessment scale, initially formulated by Longo et al.^[42], features a singular factor. Its translation into Turkish was carried out by Odaci et al.^[18]. Participants provided ratings for each question using a 5-point Likert-type scale, ranging from 1 to 5, across the 14 items of the scale. The scale's scoring spectrum ranged from a minimum of 14 to a maximum of 70, with no items employing reverse coding. The rating scale encompassed options such as "Not true at all = 1" to "Every time true = 5". The Cronbach alpha internal consistency coefficient for the scale was computed as 0.84.

2.2. Satisfaction with life scale

The Life Satisfaction Scale employed in this study was originally crafted by Diener et al.^[43] and later adapted to the Turkish context by Dağlı and Baysal^[19]. Comprising five items falling under a single factor, the scale utilized a five-point Likert scale format. Higher scores on the scale are indicative of a higher level of life satisfaction. The scale demonstrated one-dimensionality, and its internal consistency coefficient was calculated at 0.88. Sample items from the scale include statements such as "My living conditions are perfect," and "I am satisfied with my life".

2.3. Student commitment scale

The Student Commitment Scale, developed by Çinkır et al.^[44] to assess the extent of students' commitment to higher education comprises 14 items. Participants expressed their responses on a five-point Likert scale, ranging from "1=Never Disagree" to "5=Totally Agree." The scoring system employed in evaluating participants' responses considered the following ranges: "1.00–1.79 = Strongly Disagree," "1.80–2.59 = Disagree," "2.60–3.39 = Neither Agree nor Disagree/moderate," "3.40–4.19 = Agree," and "4.20–5.00 = Strongly Agree." Consequently, the cumulative score achievable on the scale ranges from 14 to 70. Scores reaching 70 or close to this value indicate a high level of commitment to the university among participants, based on the relevant scale items. It's noteworthy that there are no reverse-scored items in the scale.

2.4. Procedure

This cross-sectional study was applied to the students of two foundations and one public university in Turkey. The aim was to measure the relationship between university students' general well-being, life satisfaction and university engagement during distance education and then hybrid education. Data from university students were collected between April 1-15, 2023. The questionnaire questions directed to the participants were collected voluntarily via Google Drive.

2.5. Ethical statement

The study was approved by the Research Ethics Committee of İstanbul Aydın University (2022/09). All procedures performed in studies involving human participants were in accordance with the ethical standards of the İstanbul Aydın University Ethics Committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

2.6 Participants

The study included 416 undergraduate students, with 44% (183) being male and 56% (233) female. Among the participants, 54.1% (225) were studying at state universities, while 45.9% (191) were from foundation universities. Regarding the faculty, the majority of the participants (78.1%, 325) were enrolled in Vocational Schools, followed by Healthcare Vocational Schools with 11.1% (46). In terms of class, 52.6% (219) were first-year students, and 47.4% (197) were second-year students. Furthermore, 58.2% (242) of the participants reported having taken or currently taking an occupational health and safety course. A detailed description of the participants is given in **Table 1**.

Table 1. Distribution of participants by descriptive characteristics.

Variable	Level	n	%
Gender	Male	183	44.0
	Female	233	56.0
University	State university	225	54.1
	Foundation university	191	45.9
	Faculty of Education	11	2.6
	Faculty of economics and administrative sciences	4	1.0
Faculty	Communication faculty	3	0.7
	Vocational school	325	78.1
	Engineering faculty	11	2.6
	Healthcare vocational school	46	11.1
Class	Other	16	3.8
	1st Class	219	52.6
	2nd Class	197	47.4
Enrolling in an occupational health and safety course	Yes	242	58.2
	No	174	41.8

2.7. Statistical analysis of data

A structural equation model was used to test the proposed mediation model. Therefore, the study adopted the two-stage approach proposed by Anderson and Ginsberg^[45] as the basis for the analysis. In the first stage, the measurement model assessed construct validity, and validity and reliability analyses were conducted on the items and factors. The construct validity of the measurement model was tested by applying confirmatory factor analysis (CFA). Cronbach Alpha coefficients were calculated to determine the reliability levels of the factors. However, CR (composite reliability), AVE (average variance extracted), MSV (maximum shared variance), and MaxR(H) (maximum reliability) values, were calculated for convergent and discriminant validity calculations. The second stage is called the structural model. At this stage, structural equation model analysis was applied, and the fit values of the tested model were reported. The research hypotheses were evaluated by examining the relationships between the variables in the model.

Before conducting the main analysis, various assumptions of the analysis were rigorously tested to ensure no violations occurred. The existence of extreme values that make the normal distribution difficult in the data set was examined by calculating the Cook distance values. Cook distance values greater than one indicate that there are extreme values^[46]. It has been determined that there is no extreme value in the data set. In the next step, the normal distribution assumption was checked by calculating the skewness and kurtosis coefficients. The fact that the skewness and kurtosis coefficients are in the range of ± 1 , indicates that the normal distribution assumption is met^[47]. The coefficients calculated for the scale total scores were within the specified range ($-0.37 \leq \text{skewness} \leq 0.18$; $-0.25 \leq \text{kurtosis} \leq -0.07$). The obtained results showed that it met the normal distribution assumption. In the next step, the existence of a multicollinearity problem between the factors was investigated by calculating the correlation coefficients. A high level of relationships ($r > 0.90$) indicates a multicollinearity problem^[48]. The calculated correlation coefficients were examined, and it was determined that there was no multicollinearity problem between the factors. Analyses were performed using IBM SPSS 25.0 and AMOS 24.0 statistical package programs.

4. Result

4.1. Testing the validity and reliability of research scales

Confirmatory Factor Analysis (CFA) was applied to test the measurement model according to the data obtained from the measurement tools. Calculated fit values ($\chi^2 = 1011.16$; $\chi^2/df = 2.11$; GFI = 0.87; AGFI = 0.85; TLI = 0.93; CFI = 0.93; IFI = 0.93; SRMR = 0.06; RMSEA = 0.05) showed that the data were at an acceptable level with the model tested [49-51]. The factor loads of the items in the tested model ranged from 0.40 to 0.85. Calculated factor loads were found to be significant at each 0.001 level (Table 2).

Cronbach Alpha coefficients were calculated to determine the reliability levels of the factors in the model. The alpha coefficient should be 0.70 or higher[52]. The alpha coefficients calculated for the factors; are student commitment 0.95, general well-being 0.87, and life satisfaction 0.87. The coefficients obtained indicated that the reliability of the items in the factors was high due to internal consistency. CR (composite reliability), AVE (average variance extracted), MSV (maximum shared variance), and MaxR(H) (maximum H reliability) values were calculated for convergence and segregation validity calculations. Scale items, factor loads, convergent and discriminant validity results are shown in Table 2 and the measurement model is shown in Figure 1.

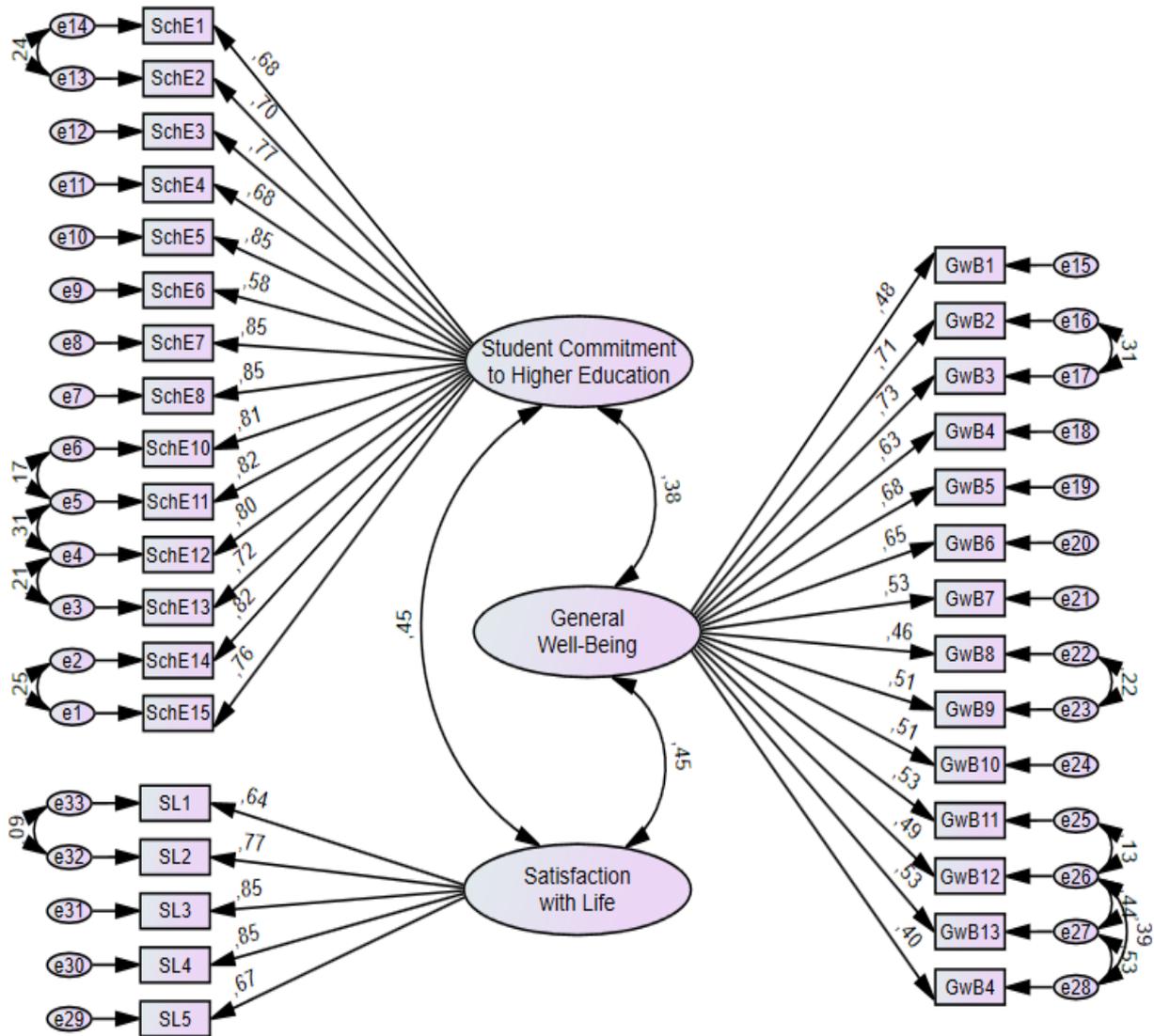


Figure 1. Measurement pattern, $\chi^2 = 1011.16$; SD = 480; $p < 0.001$.

Table 2. Validity and reliability analysis results.

Variable	Item no.	factor load	α	CR	MSV	AVE	MaxR(H)
Student Commitment to Higher Education	SchE1	0.68 ^{***}					
	SchE2	0.70 ^{***}					
	SchE3	0.77 ^{***}					
	SchE4	0.68 ^{***}					
	SchE5	0.85 ^{***}					
	SchE6	0.58 ^{***}					
	SchE7	0.85 ^{***}					
	SchE8	0.85 ^{***}	0.95	0.95	0.21	0.59	0.96
	SchE9	0.81 ^{***}					
	SchE10	0.82 ^{***}					
	SchE11	0.80 ^{***}					
	SchE12	0.72 ^{***}					
	SchE13	0.82 ^{***}					
	SchE14	0.76 ^{***}					
General Well-Being	GwB1	0.40 ^{***}					
	GwB2	0.53 ^{***}					
	GwB3	0.49 ^{***}					
	GwB4	0.53 ^{***}					
	GwB5	0.51 ^{***}					
	GwB6	0.51 ^{***}					
	GwB7	0.46 ^{***}					
	GwB8	0.53 ^{***}	0.87	0.87	0.20	0.52	0.88
	GwB9	0.65 ^{***}					
	GwB10	0.68 ^{***}					
	GwB11	0.63 ^{***}					
	GwB12	0.73 ^{***}					
	GwB13	0.71 ^{***}					
	GwB14	0.48 ^{***}					
Satisfaction with Life	SL1	0.64 ^{***}					
	SL2	0.77 ^{***}					
	SL3	0.85 ^{***}	0.87	0.87	0.21	0.58	0.89
	SL4	0.85 ^{***}					
	SL5	0.67 ^{***}					

*** $p < 0.001$; SchE = Student commitment to higher education, GwB = General well-being, SL = Satisfaction with life.

When the table was examined, it was observed that the internal reliability criteria $CR > 0.70$, and $AVE > 0.50$ conditions were met. The concordance validity condition ($CR > AVE$) was also fully met. This indicated that convergent validity was achieved 53(Malhotra & Dash, 2011). It was observed that the $MSV < AVE$ condition was met in terms of discriminant validity. In addition, the fact that the MaxR (H) reliability value is larger than the CR values, supports that discriminant validity is provided 54(Hu and Bentler, 1999). The results of the validity and reliability analysis showed that the three-factor measurement model was confirmed. It is

understood that the reliability level of the factors depending on internal consistency was high. It was determined, therefore, that discriminant and convergent validity were provided between the factors.

4.2. Correlation analysis results

Before conducting the structural equation model analysis, the relationships between the variables in the model were examined using Pearson correlation coefficients. The results are presented in **Table 3**.

Table 3. Pearson correlation coefficients of relationships between factors.

Variables	Mean	SD	1.	2.	3.
1. Student commitment to higher education	45.67	12.26	1		
2. Satisfaction with life	13.40	4.63	0.42**	1	
3. General well-being	53.99	7.11	0.36**	0.47**	1

** $p < 0.01$; $N = 416$.

Results showed that there are moderate positive and significant relationships between student commitment scores in higher education and life satisfaction ($r = 0.42$; $p < 0.01$) and general well-being ($r = 0.36$; $p < 0.01$) scores. There was a moderately positive correlation between life satisfaction scores and general well-being scores ($r = 0.47$; $p < 0.01$).

4.3. Structural equation model analysis results

In the tested structural equation model, life satisfaction is the independent variable, general well-being is the dependent variable, and student commitment to higher education is the mediator variable (**Figure 2**). The fit values obtained from the analysis ($\chi^2 = 1011.16$; $\chi^2/df = 2.11$; GFI = 0.87; AGFI = 0.85; TLI = 0.93; CFI = 0.93; IFI = 0, 93; SRMR = 0.06; RMSEA = 0.05) showed that the data were agreeably compatible with the model tested^[49-51]. The total, direct and indirect effects in the tested model are shown in **Table 4**.

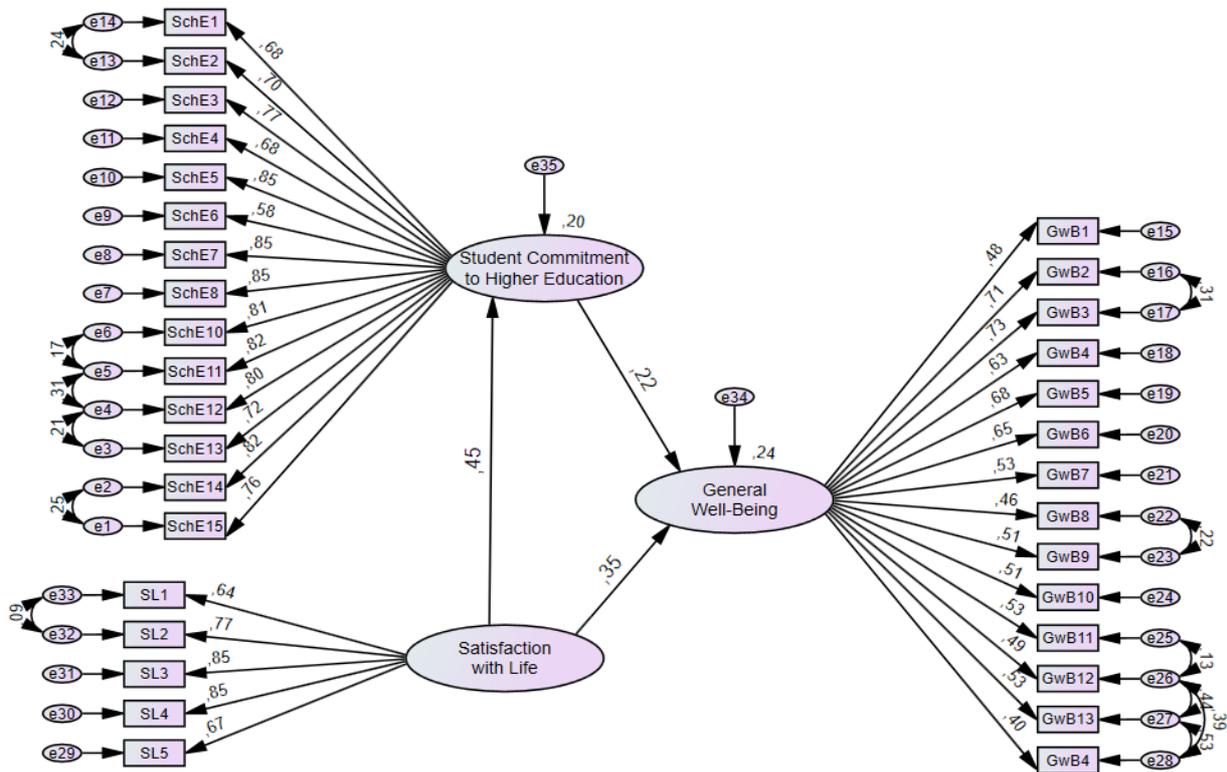


Figure 2. Structural model tested, $\chi^2 = 1011.16$; $SD = 480$; $p < 0.001$.

Table 4. Total, direct and indirect effects.

Variable			β	SE	p	Boot LLC	Boot ULCI		
Total Effect									
SL	--->	GwB	0.45	0.06	0.00**	0.33	0.56		
Direct Effects									
SL	--->	GwB	0.35	0.07	0.00**	0.22	0.48		
SL	--->	SchE	0.45	0.05	0.00**	0.34	0.55		
SchE	--->	GwB	0.22	0.06	0.00**	0.09	0.34		
Indirect Effect									
SL	--->	SchE	--->	GwB	0.10	0.03	0.00**	0.04	0.16

** $p < 0.01$, SchE = Student commitment to higher education, GwB = General well-being, SL = Satisfaction with life.

When the total effects are analyzed in the model, life satisfaction has a positive and significant effect on general well-being ($\beta = 0.45$; $p < 0.01$; 95% CI [0.33; 0.56]). When the direct effects are examined, it is seen that satisfaction with life ($\beta = 0.35$; $p < 0.01$; 95% CI [0.22; 0.48]) and student commitment in higher education ($\beta = 0.45$; $p < 0.01$; 95% CI [0.34; 0.55]) seems to have a positive and significant effect on it Student commitment in higher education has a significant positive effect on general well-being ($\beta = 0.22$; $p < 0.01$; 95% CI [0.09; 0.34]). According to the results obtained, the H1, H2 and H3 hypotheses were accepted.

When the indirect effects were examined, it was observed that life satisfaction indirectly affected general well-being through student commitment in higher education ($\beta = 0.10$; $p < 0.01$; 95% CI [0.04; 0.16]). The fact that only a part of the total effect was realized through student commitment in higher education, showed that student commitment in higher education had a partial mediating role in the relationship between life satisfaction and general well-being. According to this result, the H4 hypothesis was accepted. In the model, the disclosure rate of student commitment to higher education is 20% and the disclosure rate of general well-being is 24%.

5. Discussion

The relationship between college students' life satisfaction and general well-being provides an important link between the academic and social lives of young individuals. Students' educational processes, social relationships, and personal development are the main factors that affect their general satisfaction level. Factors such as academic achievement, social interaction, and student-faculty relationships play key roles in increasing students' life satisfaction. Additionally, a supportive university environment can strengthen their emotional well-being and positively impact their overall well-being. This study examined the mediating role of student engagement in the relationship between college students' life satisfaction and general well-being. The findings supported the main hypotheses of the study. In particular, life satisfaction was determined to positively impact overall well-being and student commitment to higher education. These results are consistent with those of previous studies such as Yıldırım and Green^[53], Çağış et al.^[54], Eisenberg et al.^[55], Wynaden et al.^[56] and Demir et al.^[57]. In this context, the college experience often contributes to students' overall well-being by increasing life satisfaction, which can help students achieve holistic satisfaction not only with their academic success but also with their personal development.

It has also been shown that student engagement in higher education positively impacts overall well-being. There are studies in the literature^[28,58] that emphasize the positive relationship between student engagement and academic success. Research has shown that student engagement in higher education has the potential to have a positive impact on overall well-being. Commitment to higher education involves a strong commitment

to the student's academic and personal goals. This commitment can trigger the student's participation in the educational process, motivation and adoption of a success-oriented attitude. A passion for academic success and personal development goals can positively impact a student's overall well-being. Additionally, commitment to higher education can strengthen social and academic support networks, making a student's educational experience more positive. These support networks can increase a student's ability to cope with stress and strengthen emotional resilience. Therefore, commitment to higher education can positively affect the student's overall well-being, contributing to the integration of the educational process not only with academic success but also with personal satisfaction. Therefore, a student's commitment to higher education stands out as an important factor in improving their overall well-being.

In earlier research, student engagement has been found to have a positive impact on general well-being. The research results are parallel to the results of previous studies such as Getir^[59], Ateş^[60], Hagenauer et al^[4], Upadyaya and Salmela-Aro^[61]. Student engagement includes a focus on academic goals, active participation in the educational process, and a passionate commitment to personal development goals. This passion can have a positive impact on a student's emotional and social well-being, increasing their overall life satisfaction. A student may feel more motivated through a strong commitment to their education, which is linked to academic success and personal development. At the same time, feelings of trust and belonging in the educational environment strengthen the student's social relationships, which in turn supports general well-being. Student engagement can also strengthen stress-coping skills because the student may be more resilient to the challenges they face. As a result, student engagement can increase overall well-being, helping an individual achieve a more satisfying experience of the educational process and have a positive impact on other areas of their life. More importantly, the findings show that student commitment to higher education has a partial mediating role in the relationship between life satisfaction and general well-being. This highlights that student engagement serves as an important bridge in the relationship between life satisfaction and overall well-being, providing a link between these dynamics. These findings contribute to the academic and personal development of students by emphasizing the importance of student engagement for university administration and education policymakers. This is one of the key discoveries of the research and shows that a student's commitment to higher education is an important link to the factors that determine their overall well-being.

In this context, the partial mediating role of student engagement provides further insight into our understanding of the relationship between life satisfaction and general well-being. Student commitment to higher education can be seen as an intermediate factor affecting life satisfaction and general well-being. Research shows that student engagement in this context is closely related not only to education but also to overall life satisfaction and well-being. Moreover, the emphasis on the partial mediation role contributes to our understanding of the complexity of these dynamics. Student engagement serves as a bridge between life satisfaction and overall well-being, allowing us to deeply understand the impact of educational experiences on an individual's overall life satisfaction. This emphasizes the broader significance of the research, highlighting that student engagement is linked not only to academic success but also to an individual's life satisfaction and general well-being. These findings may contribute to a more effective design of interventions and support mechanisms in this context, highlighting the importance of student engagement for university administration, educational policymakers and professionals in the field of psychology.

Studying individual dimensions of well-being makes it possible to develop a better understanding of how well-being is affected by social indicators such as inequality or education^[62]. In the study, it is recommended to make the necessary arrangements to enhance university commitment, which plays a partial mediating role in the relationship between life satisfaction and general well-being in university students in higher education. Guidance and psychological cooperation units should be established in universities, and active communication

with students should be ensured. Universities can organize activities such as training and conferences, not only for students but also for parents in the student-parent relationship. To increase the general well-being and life satisfaction of university students, it will be useful to carry out studies to increase their academic success. While trying to increase the level of academic success, students should be encouraged to participate in excursions, fun activities, and social projects inside and outside the university to meet their need for socialization. In this context, the community service coordinators of universities should play an active role. Providing support by the university administration and teaching staff to solve the financial problems of university students and to eliminate their employment concerns, will be effective in increasing both general well-being and provincial life satisfaction, as well as being effective in students' university commitment.

There are several limitations of the study. Firstly, it is important to acknowledge that the study adopted a cross-sectional research design. To establish causality between life satisfaction, student commitment to higher education, and well-being, future research should consider longitudinal studies. Secondly, the relationship between life satisfaction and well-being is multifaceted and necessitates further exploration. Future research could explore other potential mediating pathways between these variables, such as social support, resilience, school belongingness, and the perception of a meaningful school environment, to figure out more nuanced mediating effects. Furthermore, the study solely relied on self-reported measures, which are susceptible to recall bias and social desirability bias. Future studies could employ a combination of self-report measures and objective assessments to mitigate these biases. Finally, it is crucial to recognize that the study was conducted in specific academic settings, including two foundation universities and one public university in Turkey. As a result, the findings may not be directly transferable to other contexts. Future research should consider examining the parallel-mediation effects of life satisfaction on well-being through student commitment in diverse settings, such as regions with varying economic profiles and different types of educational institutions. Furthermore, given the idea that student engagement may differ across educational institutions, it will be important in future studies to focus on comparisons between different educational institutions to better understand the factors that influence student engagement. Such analyses can help us understand potential variations across educational institutions and develop more effective strategies.

Author contributions

Conceptualization, DCT; methodology, ZFO and GCA; software, ZFO and GCA; validation, MY; formal analysis, ZFO and GCA; investigation, ZFO and GCA; resources, MY; data curation, ZFO and GCA; writing—original draft preparation, DCT, ZFO and GCA; writing—review and editing, MY; visualization, ZFO and GCA; supervision, MY; project administration, DCT; funding acquisition, MY. All authors have read and agreed to the published version of the manuscript.

Acknowledgement

We thank all participants who voluntarily contributed to this study.

Ethical standards

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. The study received ethical approval from the Aydin University Ethic Committee with the reference number 2022/09.

Informed consent

Consent was obtained from all participants included in the study.

Data availability statement

The datasets generated during and/or analysed during the current study are available from the corresponding author upon reasonable request.

Conflicts of interest

The authors declared no conflicts of interest.

References

1. Yildirim M, Belen H. Fear of happiness predicts subjective and psychological well-being above the Behavioral Inhibition System (BIS) and Behavioral Activation System (BAS) model of personality. *Journal of Positive Psychology and Wellbeing*. 2018, 2(1): 92-111.
2. Yıldırım M, Çağış ZG, Batra K, et al. Role of resilience in psychological adjustment and satisfaction with life among undergraduate students in Turkey: A cross-sectional study. *Journal of Health and Social Sciences*. 2022, 7(2): 224–235. doi: 10.19204/2022/RLFR8
3. Novello AC, Degraw C, Kleinman D. Healthy children ready to learn: An essential collaboration between health and education. *Public Health Rep*, 1992. 107(1): 3–15.
4. Hagenauer G, Gläser-Zikuda M, Moschner B. University students' emotions, life-satisfaction and study commitment: a self-determination theoretical perspective. *Journal of Further and Higher Education*. 2017, 42(6): 808-826. Doi: 10.1080/0309877x.2017.1323189
5. Gyimah S. Minister Gyimah: Universities must ensure their mental health services are fit for purpose. Available online: <https://educationhub.blog.gov.uk/2018/09/16/minister-gyimah-universities-must-ensure-their-mental-health-services-are-fit-for-purpose/>
6. Hughes G, Spanner L. The university mental health charter. *Student Minds*. 2019.
7. Dodd AL, Priestley M, Tyrrell K, et al. University student well-being in the United Kingdom: a scoping review of its conceptualisation and measurement. *Journal of Mental Health*. 2021, 30(3): 375-387. Doi: 10.1080/09638237.2021.1875419
8. Backhaus I, Varela AR, Khoo S, et al. Associations Between Social Capital and Depressive Symptoms Among College Students in 12 Countries: Results of a Cross-National Study. *Frontiers in Psychology*. 2020, 11. Doi: 10.3389/fpsyg.2020.00644
9. Auerbach RP, Mortier P, et al. WHO World Mental Health Surveys International College Student Project: Prevalence and distribution of mental disorders. *Journal of Abnormal Psychology*. 2018, 127(7): 623-638. Doi: 10.1037/abn0000362
10. Andrews FM, Withey SB. Social indicators of well-being: America's perception of life quality. Plenum; 1976.
11. Frey BS, Stutzer A. Happiness and economics. Princeton University Press. 2002.
12. Huppert FA, So TTC. Flourishing Across Europe: Application of a New Conceptual Framework for Defining Well-Being. *Social Indicators Research*. 2011, 110(3): 837-861. doi: 10.1007/s11205-011-9966-7
13. Laschinger HKS, Grau AL. The influence of personal dispositional factors and organizational resources on workplace violence, burnout, and health outcomes in new graduate nurses: A cross-sectional study. *International Journal of Nursing Studies*. 2012, 49(3): 282-291. doi: 10.1016/j.ijnurstu.2011.09.004
14. Melnyk BM, Hrabe DP, Szalacha LA. Relationships Among Work Stress, Job Satisfaction, Mental Health, and Healthy Lifestyle Behaviors in New Graduate Nurses Attending the Nurse Athlete Program. *Nursing Administration Quarterly*. 2013, 37(4): 278-285. doi: 10.1097/naq.0b013e3182a2f963
15. Jarden RJ, Sandham M, Siegert RJ, et al. General well - being of intensive care nurses: A prototype analysis. *Nursing in Critical Care*. 2021, 28(1): 89-100. doi: 10.1111/nicc.12706
16. Sen A. Capability and well-being. In: Nussbaum M, Sen A (editors). *The quality of life*. Clarendon Press; 1993. pp. 30-53.
17. Diener E, Lucas RE, Oishi S. *Advances and Open Questions in the Science of Subjective Well-Being*. Hall N, Donnellan MB, eds. *Collabra: Psychology*. 2018, 4(1). doi: 10.1525/collabra.115
18. Odaci H, Feridun K, Kinik Ö. Adaptation study of the short form of the general well-being scale into Turkish. *Dokuz Eylul University Buca Education Faculty Journal*. 2021, (52): 97-111. doi: 10.53444/deubefd.841481
19. Dağlı A, Baysal N. Adaptation of life satisfaction scale to Turkish: A study of validity and reliability. *Electronic*

- Journal of Social Sciences, 2016. 15(59).
20. Diener E, Seligman MEP. Beyond Money. *Psychological Science in the Public Interest*. 2004, 5(1): 1-31. doi: 10.1111/j.0963-7214.2004.00501001.x
 21. Prasoon R, Chaturvedi KR. Life satisfaction: A literature review. *The Researcher: International Journal of Management, Humanities and Social Sciences*. 2016, 1(02): 24-31.
 22. Yıldırım M, Aziz IA, Vostanis P, et al. Associations among resilience, hope, social support, feeling belongingness, satisfaction with life, and flourishing among Syrian minority refugees. *Journal of Ethnicity in Substance Abuse*. Published online May 30, 2022: 1-16. doi: 10.1080/15332640.2022.2078918
 23. Matheny KB, Curlette WL, Aysan F, et al. *International Journal of Stress Management*. 2002, 9(2): 81-97. doi: 10.1023/a: 1014902719664
 24. Özgür G, Babacan Gümüş A, Durdu B. Life satisfaction of university students staying at home and dormitory. *Journal of Psychiatric Nursing*. 2010, 1(1): 25-32.
 25. Kim W, Ok C. The Effects of Relational Benefits on Customers' Perception of Favorable Inequity, Affective Commitment, and Repurchase Intention in Full-Service Restaurants. *Journal of Hospitality & Tourism Research*. 2009, 33(2): 227-244. Doi: 10.1177/1096348008329874
 26. Cohen A. Multiple commitments in the workplace: An integrative approach. Lawrence Erlbaum Associates; 2003.
 27. Strauss LC. Predictors of institutional commitment at two-year and four-year institutions [Unpublished doctoral dissertation]. The Pennsylvania State University, State College, PA. 2001.
 28. Sarwar M, Ashrafi GM. Students' commitment, engagement and locus of control as predictor of academic achievement at higher education level. *Current Issues in Education*. 2014, 17(3): 1-10.
 29. Çinkır Ş, Kurum G, Yıldız S. Student commitment scale in higher education: Validity and reliability study. *Cumhuriyet International Journal of Education*, 2017. 10(1): 273-298.
 30. Braxton JM, Milem JF, Sullivan AS. The Influence of Active Learning on the College Student Departure Process: Toward a Revision of Tinto's Theory. *The Journal of Higher Education*. 2000, 71(5): 569. doi: 10.2307/2649260
 31. Sandler ME. *Research in Higher Education*. 2000, 41(5): 537-580. doi: 10.1023/a: 1007032525530
 32. Strauss LC, Volkwein JF. Predictors of Student Commitment at Two-Year and Four-Year Institutions. *The Journal of Higher Education*. 2004, 75(2): 203-227. Doi: 10.1353/jhe.2004.0007
 33. Guney S. Life satisfaction of university students in Turkey. In: 1st world positive psychology conference. 18-23 June 2009. Pennsylvania, USA.
 34. Mehmood T, Shaikat M. Life satisfaction and psychological well-being among young adult female university students. *International Journal of Liberal Arts and Social Science*, 2014. 2(5): 143-153.
 35. Huebner ES. Research on Assessment of Life Satisfaction of Children and Adolescents. *Social Indicators Research Series*. Published online 2004: 3-33. doi: 10.1007/978-1-4020-2312-5_2
 36. Li Y, Lerner RM. Trajectories of school engagement during adolescence: Implications for grades, depression, delinquency, and substance use. *Developmental Psychology*. 2011, 47(1): 233-247. Doi: 10.1037/a0021307
 37. Mart CT. Commitment to school and students. *International Journal of Academic Research in Business and Social Sciences*. 2013, 3(1): 336.
 38. Salmela - Aro K, Upadyaya K. School burnout and engagement in the context of demands-resources model. *British Journal of Educational Psychology*. 2013, 84(1): 137-151. doi: 10.1111/bjep.12018
 39. Tuominen-Soini H, Salmela-Aro K. Schoolwork engagement and burnout among Finnish high school students and young adults: Profiles, progressions, and educational outcomes. *Developmental Psychology*. 2014, 50(3): 649-662. doi: 10.1037/a0033898
 40. Baranova T, Khalyapina L, Kobicheva A, et al. Evaluation of Students' Engagement in Integrated Learning Model in A Blended Environment. *Education Sciences*. 2019, 9(2): 138. doi: 10.3390/educsci9020138
 41. Boulton CA, Hughes E, Kent C, et al. Student engagement and wellbeing over time at a higher education institution. Della Giusta M, ed. *PLOS ONE*. 2019, 14(11): e0225770. doi: 10.1371/journal.pone.0225770
 42. Wong ZY, Liem GAD, Chan M, et al. Student engagement and its association with academic achievement and subjective well-being: A systematic review and meta-analysis. *Journal of Educational Psychology*. Published online October 23, 2023. doi: 10.1037/edu0000833
 43. Longo, Y., Coyne, I., & Joseph, S. The scales of general well-being (SGWB). *Personality and Individual Differences*, 2017, 109, 148–159. <https://doi.org/10.1016/j.paid.2017.01.005>
 44. Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, 1985, 49(1), 71–75. https://doi.org/10.1207/s15327752jpa4901_13
 45. Çinkır, Ş., Kurum, G., & Yıldız, S. Yükseköğretimde öğrenci bağlılığı ölçeği: geçerlik ve güvenirlik çalışması. *Cumhuriyet International Journal of Education*, 2021, 10 (1), 273-298.
 46. Anderson JC, Gerbing DW. Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 1988. 103(3): 411–423. doi: 10.1037/0033-2909.103.3.411
 47. Stevens J. *Applied multivariate statistics for social sciences*, 4th ed. Lawrence Erlbaum Associates Inc; 2002.

47. Tabachnick BG, Fidell LS. Using multivariate statistics, 5th ed. Allyn and Bacon; 2007.
48. O'Brien RM. A Caution Regarding Rules of Thumb for Variance Inflation Factors. *Quality & Quantity*. 2007, 41(5): 673-690. Doi: 10.1007/s11135-006-9018-6
49. Jöreskog KG, Sorbom D. LISREL 8: Structural equation modeling with the simplis command language. Scientific Software International, Inc. 1993.
50. McDonald RP, Marsh HW. Choosing a multivariate model: Noncentrality and goodness of fit. *Psychological Bulletin*. 1990, 107(2): 247-255. Doi: 10.1037/0033-2909.107.2.247
51. Browne MW, Cudeck R. Alternative ways of assessing model fit. In: Bollen K, Long J (editors). *Testing structural equation models*. pp. 136-162. Sage; 1993.
52. Cortina JM. What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology*. 1993, 78(1): 98-104. Doi: 10.1037/0021-9010.78.1.98
53. Yıldırım M, Green. Social support and resilience mediate the relationship of stress with satisfaction with life and flourishing of youth. *British Journal of Guidance & Counselling*, 2023, 1-12. Doi: 10.1080/03069885.2023.2172551
54. Çağış ZG, Öztekin GG, Aziz IA, Chirico, Rizzo A, Yıldırım. Meaning in Life and Loneliness as Mediators between COVID-19 Anxiety and Life Satisfaction in the Post-Pandemic among the General Population in Turkey: A Serial Mediation Model. *European Journal of Investigation in Health, Psychology and Education*, 2023, 13(10): 2214-2225. Doi: 10.3390/ejihpe13100156
55. Eisenberg D, Golberstein E, Hunt JB. Mental Health and Academic Success in College. *The BE Journal of Economic Analysis & Policy*. 2009, 9(1). Doi: 10.2202/1935-1682.2191
56. Wynaden D, Wichmann H, Murray S. A synopsis of the mental health concerns of university students: results of a text-based online survey from one Australian university. *Higher Education Research & Development*. 2013, 32(5): 846-860. Doi: 10.1080/07294360.2013.777032
57. Demir R, Tanhan A, Çiçek İ, et al. Yaşam Kalitesinin Yordayıcıları Olarak Psikolojik İyi Oluş ve Yaşam Doyumu. *Yaşadıkça Eğitim*. 2021, 35(1): 192-206. Doi: 10.33308/26674874.2021351256
58. Wilkins S, Butt MM, Kratochvil D, et al. The effects of social identification and organizational identification on student commitment, achievement and satisfaction in higher education. *Studies in Higher Education*. 2015, 41(12): 2232-2252. Doi: 10.1080/03075079.2015.1034258
59. Getir S. Examining the relationship between perfectionism perception, life purpose, psychological well-being and academic achievement (Turkish) [Master's thesis]. Ege Üniversitesi. 2015.
60. Ateş B. Psychological Well-Being and Social Competence as Predictors of Academic Success in University Students (Turkish). *Electronic Journal of Social Sciences*, 2016. 15(59).
61. Upadyaya K, Salmela-Aro K. Positive Youth Development Through Student Engagement: Associations with Well-Being. *Handbook of Positive Youth Development*. Published online 2021: 361-374. Doi: 10.1007/978-3-030-70262-5_24
62. Ruggeri K, Garcia-Garzon E, Maguire Á, et al. Well-being is more than happiness and life satisfaction: a multidimensional analysis of 21 countries. *Health and Quality of Life Outcomes*. 2020, 18(1). Doi: 10.1186/s12955-020-01423-y