



OPEN ACCESS

EDITED BY

Carmel Proctor,
Positive Psychology Research Centre,
Guernsey

REVIEWED BY

Rubia Cobo-Rendon,
University for Development, Chile
Shahnaz Perveen,
Government Sadiq College Women University,
Pakistan

*CORRESPONDENCE

Josué Edison Turpo-Chaparro
✉ josuetc@upeu.edu.pe

RECEIVED 08 March 2023

ACCEPTED 13 February 2024

PUBLISHED 27 February 2024

CITATION

Garnique-Hinostroza R, Coaquira OHH,
Mamani-Benito O, Turpo-Chaparro JE,
Castillo-Blanco R, Turpo SP and
Esteban RFC (2024) Self-esteem and family
satisfaction as predictors of life satisfaction in
Peruvian highland university students.
Front. Educ. 9:1182446.
doi: 10.3389/feduc.2024.1182446

COPYRIGHT

© 2024 Garnique-Hinostroza, Coaquira,
Mamani-Benito, Turpo-Chaparro, Castillo-
Blanco, Turpo and Esteban. This is an open-
access article distributed under the terms of
the [Creative Commons Attribution License
\(CC BY\)](https://creativecommons.org/licenses/by/4.0/). The use, distribution or reproduction
in other forums is permitted, provided the
original author(s) and the copyright owner(s)
are credited and that the original publication
in this journal is cited, in accordance with
accepted academic practice. No use,
distribution or reproduction is permitted
which does not comply with these terms.

Self-esteem and family satisfaction as predictors of life satisfaction in Peruvian highland university students

Ronald Garnique-Hinostroza¹, Odón Helar Huanca Coaquira¹,
Oscar Mamani-Benito², Josué Edison Turpo-Chaparro^{1*},
Ronald Castillo-Blanco³, Samuel Phala Turpo¹ and
Renzo Felipe Carranza Esteban⁴

¹Escuela de Posgrado, Universidad Peruana Unión, Lima, Peru, ²Escuela Profesional de Psicología, Universidad Peruana Unión, Lima, Peru, ³Universidad Científica del Sur, Lima, Peru, ⁴Grupo de Investigación Avances en Investigación Psicológica, Facultad de Ciencias de la Salud, Universidad San Ignacio de Loyola, Lima, Peru

Objective: To determine whether self-esteem and family satisfaction predict life satisfaction in university students from the Peruvian highlands.

Methods: A cross-sectional, predictive design study with the participation of 848 Peruvian university students of both sexes (31.7% male and 68.3% female) whose ages ranged from 17 to 41 years old ($M = 20.31$ and $SD = 3.66$). The instruments used were Rosenberg's self-esteem scale (RSE; 2000), Olson's family satisfaction scale (FSS; 2006) and Diener's life satisfaction scale (SWLS; 1985).

Results: Show that the proposed model had a fit of $\chi^2(269) = 1709.6$, $p < 0.001$, CFI = 0.957, RMSEA = 0.080, SRMR = 0.061, evidencing that positive self-esteem ($\beta = 0.21$, $p < 0.001$) and family satisfaction ($\beta = 0.57$, $p < 0.001$) significantly predict life satisfaction. Unlike negative self-esteem, which does not predict life satisfaction ($\beta = -0.09$, $p = 0.003$).

Conclusion: Self-esteem, family satisfaction, life satisfaction, university students, Peru.

KEYWORDS

self-esteem, family satisfaction, life satisfaction, university students, Peru

1 Introduction

The COVID-19 pandemic has generated repercussions in various areas such as commerce, transportation, public health, among others, becoming one of the biggest challenges that the scientific community has had to face (Schmidt et al., 2020). In the education sector, to avoid the risk of contagion, the teaching modality for classes became completely virtual (Brunotto, 2020), thus institutions had to implement systems and platforms to stimulate online learning (Costa and Carvalho-Filho, 2020). Through this use of technology, educational institutions were able to continue with the professional training process of university students (Adigun, 2020).

As a result of this impact, emotional and cognitive changes have occurred in the university population, affecting their perception of safety, quality of life and self-esteem in relation to

their present, and future goals. The perception of satisfaction with life has been especially altered, which is an important axis to maintain good academic performance (Foroughi et al., 2022), psychological well-being (Moreta Herrera et al., 2017) and self-concept (Oliver and Bustos, 2018).

1.1 Satisfaction with life in university students

Satisfaction with life is a variable that is of great importance in the university stage, not because it is directly related to academic work, but because it represents an essential component of subjective well-being (Diener et al., 1985b). Theoretically, the study of this variable has been placed in the context of well-being research, which is explained from two traditions. First, the eudaemonic tradition, which refers to personal development, self-realization and living a full life, which is known as psychological well-being. The other is the hedonic tradition, which refers to satisfaction with one's life and positive affects over negative ones, which is known as subjective well-being (Rüppel et al., 2015). Specifically, within the latter there are two components, one emotional, related to the level of happiness, which brings with it affective loads, and another cognitive, which refers to evaluations of life satisfaction (Caycho-Rodríguez et al., 2018).

Based on this perspective, life satisfaction is defined as the positive assessment that an individual makes of his or her own life in particular aspects such as family, work, studies, friends, health, free time, among others (Nuñez et al., 2019). In the field of higher education, this focuses on the evaluation that a student makes when comparing his or her expectations with what he or she has achieved, having implications in the enjoyment of the university experience (Dominguez-Lara and Campos-Uscanga, 2017).

Regarding its measurement, it is important to clarify that the construct can be understood in terms of domain satisfaction or as a cognitive evaluation of life as a whole. Specifically, in the scientific literature there are measures such as the Multidimensional Student's Life Satisfaction Scale (MSLSS) which evaluates the level of satisfaction based on five domains: family, friends, school, living environment and personal self, and is oriented to measure the construct in adolescents and young adults (Huebner and Gilman, 2002). On the other hand, there is another widely used measure, which is called the Satisfaction with Life Scale (SWLS; Diener et al., 1985a) whose objective is to measure the person's general feeling of satisfaction with his or her life as a whole, and it was created for adults. However, due to its brevity and unifactorial structure, this measure has been adapted with good psychometric performance to populations such as Peruvian university students (Oliver and Bustos, 2018).

Based on what has been reported in the scientific literature, life satisfaction is a variable that mediates person-university adjustment, i.e., it plays an important role in adaptation to university demands (Jiang and Jiang, 2015). This effect, according to some research, does not differ according to gender (Yilmaz, 2014). In addition to this, studies such as one carried out with Spanish university students show that life satisfaction depends on the social normative values and moral orientation developed in family environments (Marque et al., 2018).

In the context of the health emergency, it is quite possible that perceptions of life satisfaction have altered markedly. Factors such as the concern about the spread of COVID-19 (Hossain, 2021) and its

variants (Carranza et al., 2022) as well as the precariousness of health systems and vulnerable health conditions have generated a negative self-evaluation in different age groups, including university students, as they worry about the health status of their family members and the uncertain future due to the new online mode of study (Esteban-Carranza et al., 2021).

1.2 Literature review: predictors of life satisfaction in university students

Regarding the predictors of life satisfaction, the literature coalesces around two potential variables: family satisfaction and self-esteem. In the case of family satisfaction, until relatively recently this variable had received less attention than other family variables. However, since the 1980s, accompanying the development of the Circumplex Model of Marital and Family Systems, the idea of evaluating this variable is carried out by asking family members to evaluate the dimensions of cohesion and flexibility (Akhlaq et al., 2013). This is how, in 1982, the Olson and Wilson Family Satisfaction Scale was created, based on Olson's model, which states that family relationships are centered on three elements: cohesion, flexibility and communication (a transversal element within the family relationship) (Villarreal-Zegarra et al., 2017). According to this model, family satisfaction serves as a global indicator regarding the liking/disliking of each of the three variables.

That is why it is defined as a subjective response of liking associated with the cohesion shown by family members, flexibility to change, and communication among its members (Villarreal-Zegarra et al., 2017). In this regard, some studies point out the importance of family support for good academic performance. At the university level, research carried out in Spain found that students who belonged to dysfunctional families experienced higher levels of academic stress, compared to those who came from families where their parents stayed together (Viqueira-Gutiérrez and López-Larrosa, 2017).

In the context of the health emergency, possibly one of the environments that has undergone significant changes in its dynamics has been that of the family, since both the confinement and social isolation measures have encouraged its members to remain in direct contact for long periods of time. In this regard, the evidence found leads to the recognition of the importance of family support in the achievement of the children's personal and educational achievements. This fact has been previously reported in a cross-cultural study carried out in 31 countries, where it was found that satisfaction with the family significantly predicted the level of satisfaction with life of the participants (Diener and Diener, 1995). In addition, other studies revealed that habits acquired in the family environment contributed to positive experiences at a university, especially the application of a family style of living, which was found to be a significant predictor of the level of satisfaction with life (Terzan, 2015) and especially the application of an optimal bonding parenting style (Wang et al., 2020).

In reference to self-esteem, it is defined as the degree to which an individual shows appreciation to himself or herself, having as a basis conscious self-evaluative considerations and feelings (Abdulghani et al., 2020). In this way, it plays an important role in the development of personality, motivation and strengthening of mental health. However, there are also factors that condition its development, such as negative experiences in childhood and interaction with those around them, whether family or other people (Tabernerio et al., 2017).

According to Rosenberg's theory (Monteiro et al., 2022), there are levels of self-esteem: high, where people perceive themselves as good and fully accept themselves; median, which is not ideal as such people do not fully accept themselves and thus there is room for improvement; and low, where one considers himself or herself inferior compared to others, in addition to having self-contempt (Abdulghani et al., 2020). It is based on these indicators that two dimensions are proposed: positive self-esteem, which has to do with respect, in addition to the esteem that a person presents toward himself or herself, and negative self-esteem, which is understood as the dissatisfaction that one has toward oneself, wishing to be another person combined with feelings of contempt and rejection (Cid-Sillero et al., 2020).

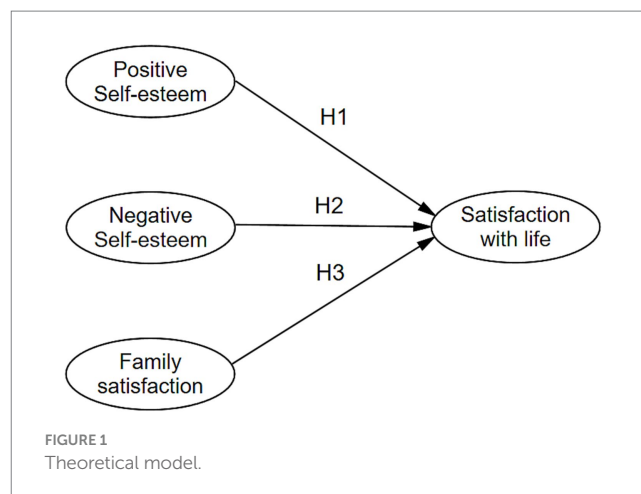
Previous studies report the value of self-esteem in the university environment, especially in times of confinement (Abdulghani et al., 2020). Especially in times of confinement, where the frequency of use of social networks such as Instagram, Facebook or Twitter has increased significantly, generating problems of body dissatisfaction or low self-esteem, which alter the perception of personal valuation (Pyszczynski et al., 2021). Current research has proven the association between this variable and life satisfaction, as revealed by a study conducted with 1,117 Spanish adolescents, where self-esteem played a moderating role between empathy and life satisfaction (Usán et al., 2023); likewise, other studies have shown that there is a functional relationship in Peruvian university students (Mamani-Benito et al., 2023) and Norwegian adolescents (Moksnes et al., 2022). Based on this evidence it is assumed to have a predictive power to explain satisfaction with life, as studies report that individuals who negatively self-evaluate themselves are not satisfied with their own lives, in contrast to those who positively self-evaluate themselves (Naranjo Pereira, 2007; Cid-Sillero et al., 2020).

1.3 Justification

From what has been seen in the literature and events in the context of the health emergency, there is a growing interest in investigating the life satisfaction of college students (Mostert and Pienaar, 2020) and its relationship with self-esteem (Kong et al., 2012) and family satisfaction (Bernal, 2012). Although there is evidence from which it can be deduced that good self-esteem plays an important role in protecting students from the challenges of university life (Grant et al., 2006) and that family satisfaction is related to life satisfaction (Caycho-Rodríguez et al., 2018; Kim and Nho, 2020), the predictive nature of life satisfaction is not clear. This is due to the fact that there is not yet enough evidence from predictive models to justify that the level of self-esteem together with the perception of family satisfaction have significant effects on the perception of life satisfaction in university students.

1.4 Hypothesis

- Positive self-esteem has a direct and significant effect on life satisfaction.
- Negative self-esteem has a significant indirect effect on life satisfaction.
- Family satisfaction has a direct and significant effect on life satisfaction.



Therefore, the following hypotheses are proposed (Figure 1).

1.5 Study objective

Faced with this gap in the scientific literature, the main objective of the study is to determine if self-esteem and family satisfaction act as predictors of satisfaction with life in Peruvian university students.

2 Materials and methods

2.1 Study design

The present study uses an associative strategy and cross-sectional predictive design (Ato et al., 2013) because it seeks to analyze the predictive ability of the independent variables (self-esteem and family satisfaction), on the criterion variable (Satisfaction with life) and because the information was collected at a single point in time.

2.2 Study participants

An intentional selection (non-probabilistic sampling) of 848 university students from a private university in the city of Juliaca, Peru was carried out; 68.3% were women between the ages of 17 and 41 (Mean = 20.31 and SD = 3.66). 37.5% were studying in the Faculty of Health Sciences.

2.3 Instruments

To assess self-esteem, we used the Rosenberg Scale (*Escala de Autoestima de Rosenberg*, EAR) validated in a Peruvian context by Ventura-León et al. (2018). It includes 10 items, with four Likert-type response options: 1 = strongly disagree, 2 = disagree, 3 = agree and 4 = strongly agree. The scale has proven to be valid (CFI = 0.997 and RMSEA = 0.020) and reliable ($\omega = >0.80$).

Likewise, this study used the version of the Family Satisfaction Scale (FSS; Olson et al., 2004) validated in Peruvian university students by Villarreal-Zegarra et al. (2017). The FSS is composed of 10 items,

with Likert-type response options, where 1 is extremely dissatisfied and 5 is extremely satisfied. The scale is valid (CFI=0.985 and RMSEA=0.048) and reliable ($\alpha=0.91$).

And to assess life satisfaction, Diener's Satisfaction With Life Scale (SWLS) scale was used, in the version validated for a Peruvian population by Caycho-Rodríguez et al. (2018). It is composed of 5 items, with Likert-type response options: 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree and 5=strongly agree. The scale is valid (CFI=0.994 and RMSEA=0.071) and reliable ($\alpha=0.93$).

2.4 Study procedure

Due to the health emergency caused by COVID-19, the information was collected virtually during the months of July, August and September 2022, using Google Forms. Afterwards, an online link was designed and shared through the Facebook social network, as well as WhatsApp groups and emails of university students. It should be noted that in the first part of the virtual questionnaire the instructions were presented, the objective of the study and informed consent was requested, emphasizing that participation is voluntary and anonymous.

2.5 Statistical analysis

The study model was analyzed by modeling structural equations with the WLSMV estimator, given the ordinal nature of the indicators in the model (Lei and Wu, 2012). Fit assessment was performed using the comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized residual root mean square (SRMR). CFI values >0.90 (Bentler, 1990), RMSEA <0.080 and SRMR <0.080 (Browne and Cudeck, 1992) were used. For the reliability analysis, the alpha (α) internal consistency method was used.

The implementation of the data analysis and the calculations were carried out with the "R" software in version 4.2.1 and the "lavaan" library was used in its version 0.6–12 (Rosseel, 2012).

3 Results

The scores of the study variables were scaled to values between 0 and 30 to facilitate their visualization with the consideration that this procedure does not affect the values of the correlations between the variables. Table 1 shows the descriptive results such as asymmetry (A) and the correlation results that are between 0.07 and 0.53 in absolute values for the study variables. In addition, this table also shows the

alpha internal consistency coefficients, which were found between the values of 0.83 and 0.93.

In the analysis of the proposed model, an adequate fit was obtained, $\chi^2(269) = 1709.6$, $p < 0.001$, CFI=0.957, RMSEA=0.080, SRMR=0.061. Thus, it is confirmed that positive self-esteem ($\beta=0.21$, $p < 0.001$) and family satisfaction ($\beta=0.57$, $p < 0.001$) significantly predict satisfaction with life (H1 and H3, respectively). On the other hand, H2 is not confirmed, since negative self-esteem does not predict satisfaction with life ($\beta=-0.09$, $p=0.003$). In addition, the model explained 48% of the variability in satisfaction with life. These results can be visualized in Figure 2.

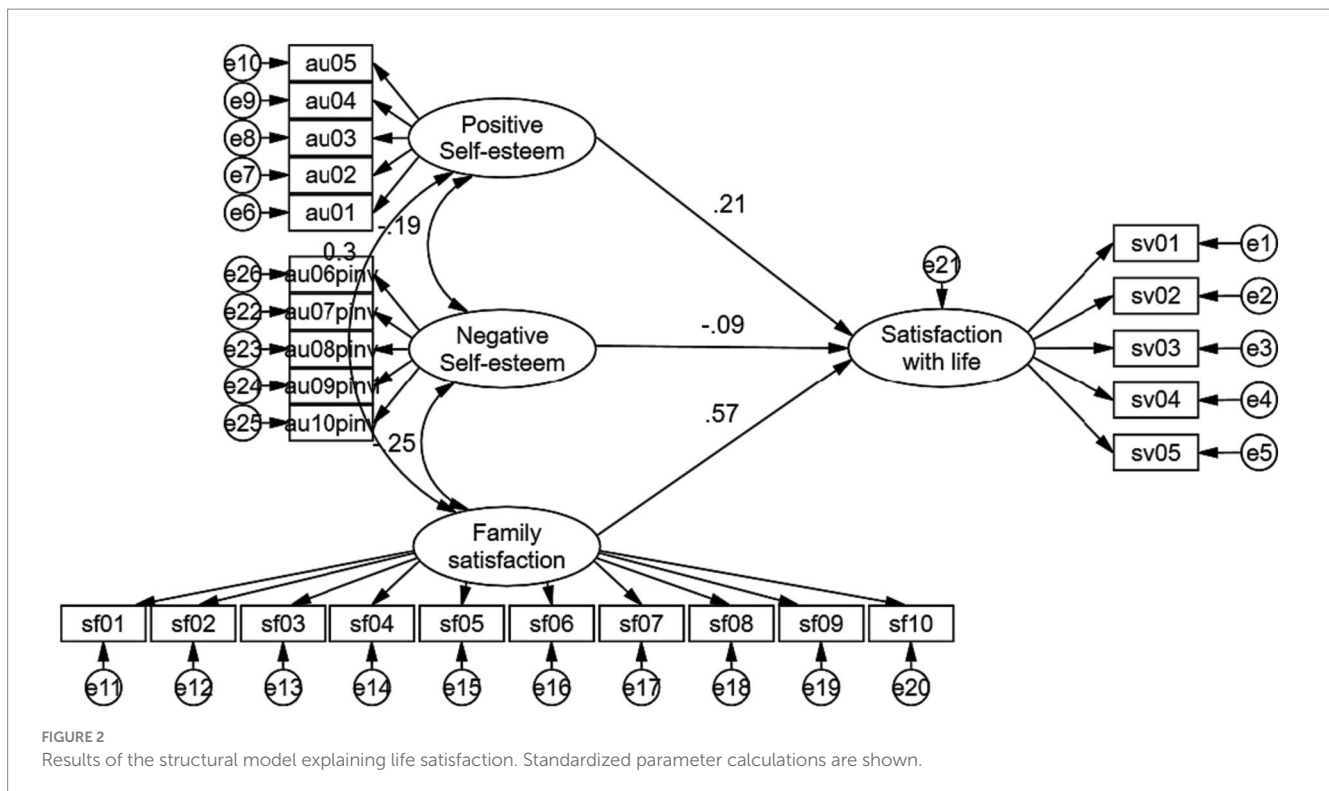
4 Discussion

In recent years, research on quality of life has broadened its focus to the measurement of life satisfaction (Denegri Coria et al., 2018). Also, life satisfaction is at the core of young adults' optimal functioning (Proctor et al., 2009). Studies show the importance of this construct to the current literature (Aşık and Albayrak, 2022; Green and Yıldırım, 2022; Mabrouk et al., 2022). On the other hand, the negative effects of social restrictions and physical distancing caused by COVID-19 could lead to reduced life satisfaction (Ngoc Nguyen et al., 2022). The main focus of this study was to determine if self-esteem and family satisfaction act as predictors of life satisfaction in university students in the Peruvian highlands. The results of the correlation analysis show a direct relationship between self-esteem, family satisfaction and life satisfaction. This result is in agreement with Merkaš and Brajša-Žganec (2011) who found that people with a good family relationship were more satisfied with their lives. The family, being the primary social group, can contribute to a person's development and well-being (Connelly, 2005). Likewise, the centrality of the family for young people is important, especially in defining future behaviors that can be positive or negative (Henry et al., 2003). Kim and Nho (2020) emphasize the importance of family relationships in improving self-esteem and life satisfaction, showing that a positive family relationship is positively associated with self-esteem and that in turn, self-esteem is positively associated with life satisfaction (An et al., 2013; In, 2017; Park and Yang, 2017). Schmidt and Padilla (2003) found that family encouragement helped young people develop confidence and positive self-images. Current studies also report the crucial role of the family in life satisfaction in young people (Orellana et al., 2022). Reports show that family problems affect life satisfaction, and additionally, in academic settings, family problems affect life satisfaction (Mei et al., 2022). Furthermore, in academic settings, the family environment is strongly linked to life satisfaction (Uzun et al., 2022).

TABLE 1 Descriptive statistics, internal consistencies, and correlations for the study variables.

Variables	<i>M</i>	<i>DE</i>	<i>A</i>	α	1	2	3	4
1. Positive Self-esteem	21.5	7.5	-1.2	0.93	-			
2. Negative Self-esteem	18.0	7.5	-0.2	0.83	0.07	-		
3. Family satisfaction	20.8	5.1	-1.0	0.92	0.22***	0.17***	-	
4. Satisfaction with life	19.9	5.8	-0.5	0.86	0.28***	0.20***	0.53***	-

*** $p < 0.001$.



This study broadens our understanding of life satisfaction in university students. According to the analysis, life satisfaction is influenced by positive self-esteem and family satisfaction. College students who report high positive self-esteem and good family satisfaction have an improved satisfaction with life (Leary and Baumeister, 2000; Kim and Nho, 2020; Kim, 2021).

The results of the predictive model show that self-esteem and family satisfaction predict life satisfaction in university students from the Peruvian highlands. Longitudinal studies in couples found that self-esteem and life satisfaction were influenced by the family relationship (Reitz et al., 2022). Another study found that family as well as self-esteem were positive contributors to life satisfaction in over 3,310 students (Lábiscsák-Erdélyi et al., 2022). It is important to highlight the study of Jun and Jung (2022) who analyzed 1,220 college students and found that those who had higher family and significant positive emotions manifested higher life satisfaction and self-esteem. The report by Moksnes et al. (2022) highlights significant positive associations between self-esteem and life satisfaction in 1,816 students, emphasizing the need to promote self-esteem, belonging, and social integration to support students' life satisfaction.

This study also evaluated the significant impact of positive self-esteem on life satisfaction. In this way, H1 was tested, where it was found that positive self-esteem has a strong impact on life satisfaction. Previous studies have shown that high-achieving students manifest more positive thinking about themselves than low-achieving students (Pullmann and Allik, 2008). In relation to H2, no influence was found between negative self-esteem and satisfaction with life. Various studies confirm that negative or low self-esteem leads to depression, anxiety or unhappiness (Abdulghani et al., 2020). Similar reports confirm that people with

low self-confidence in their youth show greater evidence of depressive illness decades later (Steiger et al., 2014).

In the case of family satisfaction, it was found that it has a strong influence on satisfaction with life. Reports indicate that students who have good family support maintain good self-esteem scores and therefore better satisfaction with life (Abdulghani et al., 2020). Furthermore, positive self-esteem was an important factor in academic satisfaction (Chen et al., 2020).

This result is in line with that presented by Diener and Diener (1995) who considered self-esteem as one of the internal predictors of life satisfaction. The theory explains that satisfaction with life is mainly a consequence of personality traits (Yan et al., 2020) and that family relationships have a strong influence on the control of emotions (López et al., 2015). Thus, self-esteem emerges as an important predictor of life satisfaction, as evidenced in numerous studies (Zimmerman et al., 1995; Gilman and Huebner, 2000). Headey et al. (1993) and other studies highlight that satisfaction with life depends to a great extent on the quality of the intimate ties within the family. Considering, moreover, that for young people, the family is one of the pillars of support and security (Barboza-Palomino et al., 2017). The study by Gilman and Huebner (2006) found that children with low levels of self-esteem also showed low levels of family satisfaction and satisfaction with life. In addition, the findings of this study are consistent with the study by Chen et al. (2016) who found that higher family relationships predicted higher life satisfaction and self-esteem. In another context, Johnson et al. (2010) looked at people with traumatic injuries and reported that family satisfaction may be related to increases in life satisfaction. Also, within the work context, previous studies indicate that workers feel more satisfied with their lives when they perceive that their

organization cares about their family satisfaction (Gahlawat et al., 2019).

4.1 Theoretical and practical implications

Among the theoretical and practical implications is that the degree of emotional sustenance one receives from one's family is associated with satisfaction with life (Curran and Yoshimura, 2016). Therefore, the level of family relationship, whether through communication or bonding fosters good life satisfaction (Rohner and Veneziano, 2001; Bernal, 2012). Therefore, life satisfaction is directly related to family satisfaction (Valdemoros San Emeterio et al., 2020) and represents one of its specific areas (Perugache Rodríguez et al., 2016). In this sense it is important to foster programs that promote better levels of self-esteem and family satisfaction to improve the levels of life satisfaction as observed in different studies (Caballero-García and Sánchez Ruiz, 2021; Lee and Tsai, 2022; Šimunović and Olčar, 2022).

Additionally, it is important to understand the effects of the COVID-19 pandemic on family dynamics (Martin-Storey et al., 2021) and academic programs on the mental health and well-being of college students (Lemyre et al., 2023). Therefore, university students should consider the effects of self-esteem and family satisfaction in order to improve their skills and expand their social roles (Fekih-Romdhane et al., 2023), understanding that self-esteem is strongly related to health (Karaca et al., 2019), academic performance (Zheng et al., 2020) and life satisfaction (Lau et al., 2020). In this sense, university authorities should incorporate awareness programs into the curriculum on the importance of proper self-esteem and adequate family satisfaction (Reić Ercegovac et al., 2021). In addition, institutions must incorporate academic activities in order to train students on the benefits of proper self-esteem and family relationships to improve their satisfaction with life.

An additional point of this study is related to the context of the Peruvian highlands and the pandemic context. Recent studies show university students from the highlands report a high level of satisfaction (Hurtado-Palomino et al., 2021) although not necessarily linked to good levels of happiness (Vargas Pacosonco and Callata Gallegos, 2021). Likewise, counterpoints should be assessed, like the study by Díaz-Quiquia et al. (2020) of those who reported high levels of narcissism and compulsivity and the study by Valdivia-Lívano et al. (2018) who reported high levels of alcohol consumption by female students and the presence of depressive symptoms.

Among the limitations and strengths of this study is that the methodology applied was of cross-sectional design, which only shows data taken at a single point in time. It would be worthwhile to develop studies of a longitudinal nature where it could be observed how these variables are manifested over time. Second, the sample of this study was not nationally representative, since only students from the Peruvian highlands were surveyed, which at the same time also represents a strength, since there are few studies that analyze this Peruvian geographical area. However, it is important to take with caution the generalization of the results.

Likewise, data collection was through self-report, so there could be certain biases related to it. Finally, taking into account that satisfaction with life as a construct is broad, it is important to analyze

other constructs that may be involved in the study, such as the variable hope (Merkaš and Brajša-Žganec, 2011).

5 Conclusion

We conclude that this study contributes to the literature because deepens the theoretical knowledge about life satisfaction and its related variables. Our results provide new knowledge and allow us to generalize some findings, in which positive self-esteem and family satisfaction predict the variability of life satisfaction in university students from the Peruvian highlands. These findings could allow institutions to implement strategies that help students improve their self-esteem through intervention programs and, in turn, consider family dynamics that provide adequate family satisfaction and ultimately improve the satisfaction with life of university students.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

The studies involving humans were approved by the Ethics Committee of the Universidad Peruana Union. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

Author contributions

RG-H, OC, and RE conceived and designed the experiments, performed the experiments, analyzed and interpreted the data, and wrote the paper. OM-B, JT-C, ST, and RC-B contributed reagents, materials, analysis tools, or data and wrote the paper. All authors contributed to the article and approved the submitted version.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

References

- Abdulghani, A. H., Almelhem, M., Basmaih, G., Alhumud, A., Alotaibi, R., Wali, A., et al. (2020). Does self-esteem lead to high achievement of the science college's students? A study from the six health science colleges. *Saudi J. Biol. Sci.* 27, 636–642. doi: 10.1016/j.sjbs.2019.11.026
- Adigun, O. T. (2020). Self-esteem, self-efficacy, self-concept and intimate image diffusion among deaf adolescents: A structural equation model analysis. *Heliyon* 6:e04742. doi: 10.1016/j.heliyon.2020.e04742
- Akhlaq, A., Malik, N. I., and Khan, N. A. (2013). Family communication and family system as the predictors of family satisfaction in adolescents. *Sci. J. Psychol.* 63, 130–136. doi: 10.7237/sjpsych/258
- An, S.-J., Lee, H.-C., and Lim, J.-Y. (2013). The influences of conflict with parents, peer relationship, and school adaptation of adolescents from multicultural families and their satisfaction with life: the mediating effects of self-esteem. *J. Korean Home Manage. Assoc.* 31, 77–91. doi: 10.7466/JKHMA.2013.31.2.077
- Aşık, E., and Albayrak, S. (2022). The effect of mindfulness levels on the life satisfaction of nursing students. *Perspect. Psychiatr. Care* 58, 1055–1061. doi: 10.1111/ppc.12898
- Ato, M., López, J., and Benavente, A. (2013). A classification system for research designs in psychology. *Ann. Psychol.* 29, 1038–1059. doi: 10.6018/analesps.29.3.178511
- Barboza-Palomino, M., Moori, I., Zárate, S., López, A., Muñoz, K., and Ramos, S. (2017). Influencia de la dinámica familiar percibida en el proyecto de vida en escolares de una institución educativa de Lima. *Psicología Escolar e Educativa* 21, 157–166. doi: 10.1590/2175-3539201702121094
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychol. Bull.* 107, 238–246. doi: 10.1037/0033-2909.107.2.238
- Bernal, A. C. L. (2012). Funcionamiento familiar, conflictos con los padres y satisfacción con la vida de familia en adolescentes bachilleres. *Acta Colombiana de Psicología* 15, 77–85.
- Browne, M. W., and Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociol. Methods Res.* 21, 230–258. doi: 10.1177/0049124192021002005
- Brunotto, M. (2020). Science in times of pandemic. *Revista de La Facultad de Odontología* 30, 1–2. doi: 10.25014/revfacodont271.2020.30.1.1
- Caballero-García, P. A., and Sánchez Ruiz, S. (2021). Creativity and life satisfaction in Spanish university students. Effects of an emotionally positive and creative program. *Front. Psychol.* 12:154. doi: 10.3389/fpsyg.2021.746154
- Carranza, R., Mamani-Benito, O., Ruiz, P., and Mejía, C. (2022). Escala de preocupación por el contagio de una variante de la COVID-19 (EPCNVCov-19). *Revista Cubana de Medicina Militar* 51, 1–15.
- Caycho-Rodríguez, T., Ventura-León, J., García Cadena, C. H., Barboza-Palomino, M., Arias Gallegos, W. L., Dominguez-Vergara, J., et al. (2018). Psychometric evidence of the diener's satisfaction with life scale in peruvian elderly. *Revista Ciencias de La Salud* 16, 488–506. doi: 10.12804/revistas.urosario.edu.co/revsalud/a.7267
- Caycho-Rodríguez, T., Ventura-León, J., Barboza-Palomino, M., Reyes-Bossio, M., Arias Gallegos, W. L., García Cadena, C. H., et al. (2018). Validez e invarianza factorial de una medida breve de Satisfacción con la Vida Familiar. *Universitas Psychologica* 17, 1–17. doi: 10.11144/javeriana.upsy17-5.vifm
- Chen, W., Niu, G.-F., Zhang, D.-J., Fan, C.-Y., Tian, Y., and Zhou, Z.-K. (2016). Socioeconomic status and life satisfaction in Chinese adolescents: analysis of self-esteem as a mediator and optimism as a moderator. *Personal. Individ. Differ.* 95, 105–109. doi: 10.1016/j.paid.2016.01.036
- Chen, H.-C., Wang, J.-Y., Lin, Y.-L., and Yang, S.-Y. (2020). Association of Internet Addiction with family functionality, depression, self-efficacy and self-esteem among early adolescents. *Int. J. Environ. Res. Public Health* 17:8820. doi: 10.3390/ijerph17238820
- Cid-Sillero, S., Pascual-Sagastizabal, E., and Martínez-de-Morentin, J.-I. (2020). Influencia de la autoestima y la atención en el rendimiento académico del alumnado de la ESO y FPB. *Revista de Psicodidáctica* 25, 59–67. doi: 10.1016/j.psicod.2019.06.001
- Connelly, T. (2005). Family functioning and Hope in children with juvenile rheumatoid arthritis. *MCN Am. J. Matern. Child Nurs.* 30, 245–250. doi: 10.1097/00005721-200507000-00008
- Costa, M. J., and Carvalho-Filho, M. (2020). Una nueva época para la educación médica después de la COVID-19. *Revista de La Fundación Educación Médica* 23:55. doi: 10.33588/fem.232.1052
- Curran, T. M., and Yoshimura, S. M. (2016). Mother-child reports of affectionate communication with fathers: associations with family satisfaction and life satisfaction. *Commun. Rep.* 29, 163–174. doi: 10.1080/08934215.2016.1170171
- Denegri Coria, M., González Rivera, N., Elgueta Sepúlveda, H., García Jara, C., Sepúlveda, J. A., Schnettler, B., et al. (2018). Life satisfaction in Chilean university students: an examination of the relation between gender and socioeconomic level. *CES Psicología* 11, 40–55. doi: 10.21615/cesp.11.1.4
- Díaz-Quiquía, V., López, K. J., de Souza-Arruda, J., Díaz, C. R., and Mejía, A. C. (2020). Características y factores asociados a trastornos de la esfera mental en estudiantes de medicina de la costa, sierra y selva peruana. *Rev. Chil. Neuropsiquiatr.* 58, 230–239. doi: 10.4067/S0717-92272020000300230
- Diener, E., and Diener, M. (1995). Cross-cultural correlates of life satisfaction and self-esteem. *J. Pers. Soc. Psychol.* 68, 653–663. doi: 10.1037/0022-3514.68.4.653
- Diener, E., Emmons, R. A., Larsen, R. J., and Griffin, S. (1985a). The satisfaction with life scale. *J. Pers. Assess.* 49, 71–75. doi: 10.1207/s15327752jpa4901_13
- Diener, E., Larsen, R., and Griffin, S. (1985b). *Escala de satisfacción con la vida*.
- Dominguez-Lara, S. A., and Campos-Uscanga, Y. (2017). Influence of study satisfaction on academic procrastination in psychology students: a preliminary study. *Liberabit: Revista Peruana de Psicología* 23, 123–135. doi: 10.24265/liberabit.2017.v23n1.09
- Esteban-Carranza, R. F., Mamani-Benito, O. J., Rodríguez-Alarcon, J. F., Corrales-Reyes, I. E., and Farfán-Solis, R. (2021). Escala de preocupación por el contagio de la COVID-19 en personal de la salud peruano. *Rev. Colomb. Psiquiatr.* 52, 38–44. doi: 10.1016/j.rcp.2021.03.006
- Fekih-Romdhane, F., Sawma, T., Obeid, S., and Hallit, S. (2023). Self-critical perfectionism mediates the relationship between self-esteem and satisfaction with life in Lebanese university students. *BMC Psychol.* 11:4. doi: 10.1186/s40359-023-01040-6
- Foroughi, B., Griffiths, M. D., Iranmanesh, M., and Salamzadeh, Y. (2022). Associations between Instagram addiction, academic performance, social anxiety, depression, and life satisfaction among university students. *Int. J. Ment. Heal. Addict.* 20, 2221–2242. doi: 10.1007/s11469-021-00510-5
- Gahlawat, N., Phogat, R. S., and Kundu, S. C. (2019). Evidence for life satisfaction among dual-career couples: the interplay of job, career, and family satisfaction in relation to workplace support. *J. Fam. Issues* 40, 2893–2921. doi: 10.1177/0192513X19868267
- Gilman, R., and Huebner, E. S. (2000). Review of life satisfaction measures for adolescents. *Behav. Chang.* 17, 178–195. doi: 10.1375/bech.17.3.178
- Gilman, R., and Huebner, E. S. (2006). Characteristics of adolescents who report very high life satisfaction. *J. Youth Adolesc.* 35, 293–301. doi: 10.1007/s10964-006-9036-7
- Grant, K. E., Compas, B. E., Thurm, A. E., McMahon, S. D., Gipson, P. Y., Campbell, A. J., et al. (2006). Stressors and child and adolescent psychopathology: evidence of moderating and mediating effects. *Clin. Psychol. Rev.* 26, 257–283. doi: 10.1016/j.cpr.2005.06.011
- Green, Z. A., and Yıldırım, M. (2022). Personal growth initiative moderates the mediating effect of COVID-19 preventive behaviors between fear of COVID-19 and satisfaction with life. *Heliyon* 8:e09729. doi: 10.1016/j.heliyon.2022.e09729
- Headey, B., Kelley, J., and Wearing, A. (1993). Dimensions of mental health: life satisfaction, positive affect, anxiety and depression. *Soc. Indic. Res.* 29, 63–82. doi: 10.1007/BF01136197
- Henry, C. S., Robinson, L. C., and Wilson, S. M. (2003). Adolescent perceptions of their family system, parents' behavior, self-esteem, and family life satisfaction in relation to their substance use. *J. Child Adolesc. Subst. Abuse* 13, 29–59. doi: 10.1300/J029v13n02_02
- Hossain, M. (2021). COVID-19 and gender differences in mental health in low- and middle-income countries: young working women are more vulnerable. *SSM Mental Health* 1:100039. doi: 10.1016/j.ssmmh.2021.100039
- Huebner, E. S., and Gilman, R. (2002). An introduction to the multidimensional students' life satisfaction scale. *Soc. Indic. Res.* 60, 115–122. doi: 10.1023/A:1021252812882
- Hurtado-Palomino, A., Merma-Valverde, W., Ccorisapra-Quintana, F. D. M., Lazo-Cerón, Y., and Boza-Salas, K. (2021). Estrategias de enseñanza docente en la satisfacción académica de los estudiantes universitarios. *Comuniación: Revista de Investigación En Comunicación y Desarrollo* 12, 217–228. doi: 10.33595/2226-1478.12.3.559
- In, H. (2017). Longitudinal relationships among adolescents' perceived family support, life satisfaction, and mothers' acculturative stress in multicultural families. *Korean J. Youth Stud.* 24, 459–482. doi: 10.21509/KJYS.2017.10.24.10.459
- Jiang, Z., and Jiang, X. (2015). Core self-evaluation and life satisfaction: the person-environment fit perspective. *Personal. Individ. Differ.* 75, 68–73. doi: 10.1016/j.paid.2014.11.013
- Johnson, C. L., Resch, J. A., Elliott, T. R., Villarreal, V., Kwok, O.-M., Berry, J. W., et al. (2010). Family satisfaction predicts life satisfaction trajectories over the first 5 years after traumatic brain injury. *Rehabil. Psychol.* 55, 180–187. doi: 10.1037/a0019480
- Jun, S.-K., and Jung, I.-S. (2022). Exploration of the differences in positive-negative psychological factors influencing the life satisfaction and depression of college students by gender and family economic level. *Int. J. Adv. Appl. Sci.* 9, 88–96. doi: 10.21833/ijaas.2022.04.011
- Karaca, A., Yildirim, N., Cangur, S., Acikgoz, F., and Akkus, D. (2019). Relationship between mental health of nursing students and coping, self-esteem and social support. *Nurse Educ. Today* 76, 44–50. doi: 10.1016/j.nedt.2019.01.029
- Kim, S. (2021). Factors influencing life satisfaction in middle-aged women in South Korea: A descriptive research using panel data. *Nurs. Pract. Today* 8, 265–272. doi: 10.18502/npt.v8i4.6702

- Kim, E. H., and Nho, C. R. (2020). Longitudinal reciprocal relationships between self-esteem, family support, and life satisfaction in Korean multicultural adolescents. *Asian Soc. Work Policy Rev.* 14, 184–196. doi: 10.1111/aswp.12208
- Kong, F., Zhao, J., and You, X. (2012). Emotional intelligence and life satisfaction in Chinese university students: the mediating role of self-esteem and social support. *Personal. Individ. Differ.* 53, 1039–1043. doi: 10.1016/j.paid.2012.07.032
- Lábicsák-Erdélyi, Z., Veres-Balajti, I., Somhegyi, A., and Kósa, K. (2022). Self-esteem is independent factor and moderator of school-related psychosocial determinants of life satisfaction in adolescents. *Int. J. Environ. Res. Public Health* 19:5565. doi: 10.3390/ijerph19095565
- Lau, C., Chiesi, F., Hofmann, J., Ruch, W., and Saklofske, D. H. (2020). Cheerfulness and life satisfaction mediated by self-esteem and behavioral activation: A serial mediation model. *Personal. Individ. Differ.* 166:110175. doi: 10.1016/j.paid.2020.110175
- Leary, M. R., and Baumeister, R. F. (2000). The nature and function of self-esteem: sociometer theory. *Adv. Exp. Soc. Psychol.* 32, 1–62. doi: 10.1016/S0065-2601(00)80003-9
- Lee, M.-H., and Tsai, H.-Y. (2022). A study of job insecurity and life satisfaction in COVID-19: the multilevel moderating effect of perceived control and work–life balance programs. *J. Men's Health* 18:1. doi: 10.31083/j.jomh1801021
- Lei, P., and Wu, Q. (ed.) (2012). “Estimation in structural equation modeling” in *Handbook of structural equation modeling*. (London: The Guilford Press), 164–180.
- Lemyre, A., Palmer-Cooper, E., and Messina, J. P. (2023). Wellbeing among university students during the COVID-19 pandemic: a systematic review of longitudinal studies. *Public Health* 222, 125–133. doi: 10.1016/j.puhe.2023.07.001
- López, L., Amutio, A., Oriol, X., and Bisquerra, R. (2015). Habits related to relaxation and mindfulness in high school students: influence on classroom climate and academic performance // Hábitos relacionados con la relajación y la atención plena (mindfulness) de estudiantes de secundaria: influencia en el clima. *Revista de Psicodidáctica / Journal of Psychodidactics* 21, 121–138. doi: 10.1387/RevPsicodidact.13866
- Mabrouk, F., Mekni, M. M., and Aldawish, A. (2022). Digital learning, life satisfaction, and perceived stress due to COVID-19 emergency: case study among female Saudi university students. *Front. Psychol.* 13:608. doi: 10.3389/fpsyg.2022.875608
- Mamani-Benito, O., Carranza Esteban, R. F., Caycho-Rodríguez, T., Castillo-Blanco, R., Tito-Betancur, M., Alfaro Vásquez, R., et al. (2023). The influence of self-esteem, depression, and life satisfaction on the future expectations of Peruvian university students. *Front. Educ.* 8, 1–7. doi: 10.3389/feduc.2023.976906
- Marque, C., Taveria, M., Ceinos, C., Silva, D., and Nogueira, M. (2018). Satisfacción con la vida en estudiantes universitarios: Papel predictor de los valores. *Psicología Desde El Caribe* 35, 171–182.
- Martin-Storey, A., Dirks, M., Holfeld, B., Dryburgh, N. S. J., and Craig, W. (2021). Family relationship quality during the COVID-19 pandemic: the value of adolescent perceptions of change. *J. Adolesc.* 93, 190–201. doi: 10.1016/j.adolescence.2021.11.005
- Mei, S., Yuan, T., Liang, L., Ren, H., Hu, Y., Qin, Z., et al. (2022). Effect of family stress on life satisfaction among female workers during the COVID-19 epidemic in China: exploring the roles of anxiety symptoms and age. *J. Health Psychol.* 27, 1484–1497. doi: 10.1177/13591053211044824
- Merkaš, M., and Brajša-Žganec, A. (2011). Children with different levels of Hope: are there differences in their self-esteem, life satisfaction, social support, and family cohesion? *Child Indic. Res.* 4, 499–514. doi: 10.1007/s12187-011-9105-7
- Moksnes, U. K., Bjørnsen, H. N., Ringdal, R., Eilertsen, M.-E. B., and Espnes, G. A. (2022). Association between loneliness, self-esteem and outcome of life satisfaction in Norwegian adolescents aged 15–21. *Scand. J. Public Health* 50, 1089–1096. doi: 10.1177/14034948221081287
- Monteiro, R. P., Coelho, G. L. D. H., Hanel, P. H. P., de Medeiros, E. D., and da Silva, P. D. G. (2022). The efficient assessment of self-esteem: proposing the brief Rosenberg self-esteem scale. *Appl. Res. Qual. Life* 17, 931–947. doi: 10.1007/s11482-021-09936-4
- Moreta Herrera, R., Gaibor, I., and Barrera, L. (2017). El bienestar psicológico y la satisfacción con la vida como predictores del bienestar social en una muestra de universitarios ecuatorianos. *Salud Sociedad* 8, 172–184. doi: 10.22199/S07187475.2017.0002.00005
- Mostert, K., and Pienaar, J. (2020). The moderating effect of social support on the relationship between burnout, intention to drop out, and satisfaction with studies of first-year university students. *J. Psychol. Afr.* 30, 197–202. doi: 10.1080/14330237.2020.1767928
- Naranjo Pereira, M. L. (2007). Autoestima: un factor relevante en la vida de la persona y tema esencial del proceso educativo. *Revista Electrónica “Actualidades Investigativas En Educación”* 7, 1–27. doi: 10.15517/aie.v7i3.9296
- Ngoc Nguyen, B. T., Huynh, S. Van, Nguyen, T. N., Nguyen-Duong, B.-T., Ngo-Thi, T.-T., and Tran-Chi, V.-L. (2022). Mediation effects of post-series depression on the relationship between life satisfaction and positive mental health of Vietnamese: a cross-sectional study in COVID-19 pandemic context. *Front. Psychol.* 13, 1–14. doi: 10.3389/fpsyg.2022.971711
- Núñez, M., Clark, Y., Velarde, C., Esparza, I., Muñoz, S., and Parada, M. (2019). Autoestima y satisfacción con la vida en estudiantes universitarios de México, Bolivia y España. *Utopía y Praxis Latinoamericana* 4, 14–28.
- Oliver, A., and Bustos, V. (2018). Validación de la Escala de Satisfacción con la Vida y su relación con las dimensiones del Autoconcepto en universitarios peruanos. *Persona* 2, 29–44. doi: 10.26439/persona2018.n021.3018
- Olson, D. H., Gorall, D. M., and Tiesel, J. W. (2004). *Faces IV package*. Minneapolis, MN: Life Innovations, 39, 12–13.
- Orellana, L., Schnettler, B., Adasme-Berrios, C., Lobos, G., Miranda-Zapata, E., and Lapo, M. (2022). Family profiles based on family life satisfaction in dual-earner households with adolescent children in Chile. *Fam. Process* 61, 906–925. doi: 10.1111/famp.12714
- Park, H.-S., and Yang, S.-H. (2017). The growth trajectory of multicultural Children's life satisfaction in Korea. *Kor. Educ. Inqu.* 35, 95–121. doi: 10.22327/kei.2017.35.4.095
- Perugache Rodríguez, A. D. P., Caicedo, A. L., Barón, K. A., and Tenganan Álvarez, D. S. (2016). Educación emocional y satisfacción con la vida percibida en un grupo de adultos mayores. *Revista Colombiana de Ciencias Sociales* 7:312. doi: 10.21501/22161201.1781
- Proctor, C. L., Linley, P. A., and Maltby, J. (2009). Youth life satisfaction: a review of the literature. *J. Happiness Stud.* 10, 583–630. doi: 10.1007/s10902-008-9110-9
- Pullmann, H., and Allik, J. (2008). Relations of academic and general self-esteem to school achievement. *Personal. Individ. Differ.* 45, 559–564. doi: 10.1016/j.paid.2008.06.017
- Pyszczynski, T., Lockett, M., Greenberg, J., and Solomon, S. (2021). Terror management theory and the COVID-19 pandemic. *J. Humanist. Psychol.* 61, 173–189. doi: 10.1177/0022167820959488
- Reić Ercegovac, I., Maglica, T., and Ljubetić, M. (2021). The Relationship Between Self-Esteem, Self-Efficacy, Family and Life Satisfaction, Loneliness and Academic Achievement During Adolescence / Odnos između samopoštovanja, samoučinkovitosti, zadovoljstva s obitelji i životom, usamljenosti i akademskog posti. *Croatian Journal of Education - Hrvatski Časopis Za Odgoj i Obrazovanje*. 23, 65–83. doi: 10.15516/cje.v23i0.4049
- Reitz, A. K., Weidmann, R., Wünsche, J., Bühler, J. L., Burriss, R. P., and Grob, A. (2022). In good times and in bad: a longitudinal analysis of the impact of bereavement on self-esteem and life satisfaction in couples. *Eur. J. Personal.* 36, 616–639. doi: 10.1177/089020702111054896
- Rohner, R. P., and Veneziano, R. A. (2001). The importance of father love: history and contemporary evidence. *Rev. Gen. Psychol.* 5, 382–405. doi: 10.1037/1089-2680.5.4.382
- Rosseel, Y. (2012). Lavaan: An R package for structural equation modeling. *J. Stat. Softw.* 48, 1–93. doi: 10.18637/jss.v048.i02
- Rüffel, F., Liersch, S., and Walter, U. (2015). The influence of psychological well-being on academic success. *J. Public Health* 23, 15–24. doi: 10.1007/s10389-015-0654-y
- Schmidt, B., Crepaldi, M. A., Dill, S., Bolze, A., Neiva-silva, L., and Demenech, L. M. (2020). Impactos na Saúde Mental e Intervenções Psicológicas Diante da Pandemia do Novo Coronavírus (COVID-19). *Revista Estudos de Psicologia (Campinas)* 37:e200063. doi: 10.1590/1982-0275202037e200063
- Schmidt, J. A., and Padilla, B. (2003). Self-esteem and family challenge: An investigation of their effects on achievement. *J. Youth Adolesc.* 32, 37–46. doi: 10.1023/A:1021080323230
- Šimunović, Z., and Olčar, D. (2022). Life satisfaction among adolescents: comparison of adolescents attending music and sports programs and those who do not. *Int. J. Learn. Teach. Educ. Res.* 21, 428–445. doi: 10.26803/ijlter.21.5.21
- Steiger, A. E., Allemand, M., Robins, R. W., and Fend, H. A. (2014). Low and decreasing self-esteem during adolescence predict adult depression two decades later. *J. Pers. Soc. Psychol.* 106, 325–338. doi: 10.1037/a0035133
- Taberero, C., Serrano, A., and Mérida, R. (2017). Estudio comparativo de la autoestima en escolares de diferente nivel socioeconómico. *Psicología Educativa* 23, 9–17. doi: 10.1016/j.pse.2017.02.001
- Tercan, E. (2015). An examination of leisure participation, family assessment and life satisfaction in university students. *Procedia. Soc. Behav. Sci.* 186, 58–63. doi: 10.1016/j.sbspro.2015.04.123
- Usán, P., Salavera, C., Quiles, A., Lozano, R., and Latorre, C. (2023). Empathy, self-esteem and satisfaction with life in adolescent. *Child Youth Serv. Rev.* 144:106755. doi: 10.1016/j.childyouth.2022.106755
- Uzun, B., LeBlanc, S., Guclu, I. O., Ferrari, J. R., and Aydemir, A. (2022). Mediation effect of family environment on academic procrastination and life satisfaction: assessing emerging adults. *Curr. Psychol.* 41, 1124–1130. doi: 10.1007/s12144-021-02652-0
- Valdemoros San Emeterio, M. Á., Sanz Arazuri, E., Ponce de León Elizondo, A., and Duque Palacios, M. C. (2020). Jóvenes lectores y satisfacción con la vida familiar. *Ocnos: Revista de Estudios Sobre Lectura* 19, 17–30. doi: 10.18239/ocnos.2020.19.3.2361
- Valdivia-Livano, S., Vega-Melgar, V., Jiménez-Meza, Y., Macedo-Poma, K., Caro-Rivera, E., Lazo-Escobar, D., et al. (2018). Consumo alcohólico de riesgo en estudiantes de tres universidades de la sierra central peruana: frecuencia según sexo y factores asociados. *Rev. Chil. Neuropsiquiatr.* 56, 110–116. doi: 10.4067/s0717-92272018000200110
- Vargas Pacosonco, K. R., and Callata Gallegos, Z. E. (2021). La felicidad en tiempos de pandemia y educación virtual: un estudio en universitarios del Altiplano. *Comuni@ción: Revista de Investigación En Comunicación y Desarrollo* 12, 111–120. doi: 10.33595/2226-1478.12.2.493
- Ventura-León, J., Caycho-Rodríguez, T., Barboza-Palomino, M., and Salas, G. (2018). Evidencias psicométricas de la Escala de Autoestima de Rosenberg en adolescentes limeños. [Psychometric evidence of Rosenberg Self-Esteem Scale in adolescents from Lima.]. *Revista Iberoamericana de Psicología* 52, 44–60. Available at: <https://journal.sipsych.org/index.php/IJP/article/view/363>

- Villarreal-Zegarra, D., Copez-Lonzoy, A., Paz-Jesús, A., and Costa-Ball, C. D. (2017). Validez y confiabilidad de la Escala Satisfacción Familiar en estudiantes universitarios de Lima Metropolitana, Perú. *Actualidades En Psicología* 31, 89–98. doi: 10.15517/ap.v31i123.23573
- Viqueira-Gutiérrez, L., and López-Larrosa, S. (2017). Estrés y Satisfacción Familiar en estudiantes universitarios: ¿afecta el divorcio parental? *Revista de Estudios e Investigación En Psicología y Educación* 4, 58–63. doi: 10.17979/reipe.2017.4.1.2026
- Wang, Y., Nakamura, T., and Sanefuji, W. (2020). The influence of parental rearing styles on university students' critical thinking dispositions: the mediating role of self-esteem. *Think. Skills Creat.* 37, 100679–100678. doi: 10.1016/j.tsc.2020.100679
- Yan, W., Yang, K., Wang, Q., You, X., and Kong, F. (2020). Subjective family socioeconomic status and life satisfaction in Chinese adolescents: the mediating role of self-esteem and social support. *Youth Soc.* 53, 1047–1065. doi: 10.1177/0044118X20941344
- Yilmaz, I. (2014). Fairness in the learning environment and satisfaction with life: a study of Turkish university students of sports Sciences. *Anthropologist* 18, 1069–1076. doi: 10.1080/09720073.2014.11891589
- Zheng, L. R., Atherton, O. E., Trzesniewski, K., and Robins, R. W. (2020). Are self-esteem and academic achievement reciprocally related? Findings from a longitudinal study of Mexican-origin youth. *J. Pers.* 88, 1058–1074. doi: 10.1111/jopy.12550
- Zimmerman, M. A., Salem, D. A., and Maton, K. I. (1995). Family structure and psychosocial correlates among urban African-American adolescent males. *Child Dev.* 66, 1598–1613. doi: 10.2307/1131899