



OPEN ACCESS

EDITED BY

Joseph Madaus,
University of Connecticut, United States

REVIEWED BY

Isabel Mercader Rubio,
University of Almeria, Spain
Nieves Gutiérrez Ángel,
University of Almeria, Spain
Pilar Sánchez-Lopez,
University of Almeria, Spain

*CORRESPONDENCE

Renzo Felipe Carranza Esteban
✉ rcarranza@usil.edu.pe

RECEIVED 23 June 2022

ACCEPTED 05 June 2023

PUBLISHED 23 June 2023

CITATION

Mamani-Benito O, Carranza Esteban RF, Caycho-Rodríguez T, Castillo-Blanco R, Tito-Betancur M, Alfaro Vásquez R and Ruiz Mamani PG (2023) The influence of self-esteem, depression, and life satisfaction on the future expectations of Peruvian university students.

Front. Educ. 8:976906.

doi: 10.3389/feduc.2023.976906

COPYRIGHT

© 2023 Mamani-Benito, Carranza Esteban, Caycho-Rodríguez, Castillo-Blanco, Tito-Betancur, Alfaro Vásquez and Ruiz Mamani. 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.

The influence of self-esteem, depression, and life satisfaction on the future expectations of Peruvian university students

Oscar Mamani-Benito¹, Renzo Felipe Carranza Esteban^{2*}, Tomás Caycho-Rodríguez³, Ronald Castillo-Blanco⁴, Madona Tito-Betancur⁵, Rosa Alfaro Vásquez⁶ and Percy G. Ruiz Mamani⁷

¹Facultad de Derecho y Humanidades, Universidad Señor Sipán, Chiclayo, Peru, ²Grupo de Investigación Avances en Investigación Psicológica, Facultad de Ciencias de la Salud, Universidad San Ignacio de Loyola, Lima, Peru, ³Facultad de Psicología, Universidad Científica del Sur, Lima, Peru, ⁴Dirección de Gestión del Aprendizaje, Universidad del Pacífico, Lima, Peru, ⁵Facultad de derecho, Universidad Tecnológica del Perú, Arequipa, Peru, ⁶Escuela Profesional de Psicología, Universidad Peruana Unión, Lima, Peru, ⁷Escuela Profesional de Enfermería, Facultad de Ciencias de la Salud, Universidad Privada San Juan Bautista, Lima, Peru

Introduction: Strengthening the self-confidence of future professionals can help them achieve professional goals with a likelihood of being able to achieve them in the future. The objective was to determine whether self-esteem, depression, and life satisfaction influence the future expectations of Peruvian university students.

Methods: A total of 708 university students participated (64.8% were female, mean age = 21.49; SD = 4.83). The Rosenberg Self-Esteem Scale, the Patient Health Questionnaire-2, the Life Satisfaction Scale, and the Adolescent Future Expectations Scale were used. Structural equation modeling was employed to test the impact of self-esteem, depression, and life satisfaction on future expectations.

Results: The model relating the study variables demonstrated an adequate fit ($p < 0.001$, CFI = 0.940, RMSEA = 0.073), confirming the relationship between self-esteem ($\beta = 0.33$, $p < 0.001$), life satisfaction ($\beta = 0.28$, $p < 0.001$), and depression ($\beta = -0.14$, $p < 0.010$) with future expectations. This model explained 36% of future expectations.

Discussion: In conclusion, future expectations may be affected by low levels of self-esteem and life satisfaction and high levels of depression.

KEYWORDS

self-esteem, depression, life satisfaction, future expectations, university students

1. Introduction

The university phase plays a vital role in the professional and personal development of an individual. Therefore, this period is expected to prepare for adult life, giving priority to building a meaningful and unique life project (Alm et al., 2019), where the university student decides in the medium and long term what goals related to the academic, family, emotional, and social spheres to pursue (Sánchez-Sandoval and Verdugo, 2016). However, scenarios such as the impact of the COVID-19 pandemic have proven to be negative for all future planning, since not only has health

been put at risk, but also the possibility of achieving the objectives set by university students.

In this context, the ability to project into the future is observed from childhood, and by adolescence, the ability to direct oneself becomes even more important (Geven et al., 2020). In this regard, the last 30 years have seen a progressive increase in research on human development, where scientific evidence has promoted the desire for healthy development of the adolescent population, since facing psychosocial development at this stage can represent a challenge for those in this age group. At this stage, they are expected to demonstrate a certain independence from their parents, adapt to the social environment, and improve their relationship with their peers, in addition to adequately managing changes in their body image and promoting the development of their own identity as individuals (Sheng et al., 2022).

The term “future expectations” refers to what extent a person expects an event to occur. This influences their planning and goal setting, thus guiding their behavior and development (Sánchez-Sandoval and Verdugo, 2016). In this sense, for adolescents who are about to start college, planning is important, since developing positive future expectations is associated with greater well-being and fewer negative results in the context of higher academic performance (Gan et al., 2022).

At the university level, students need to study factors at both individual and contextual levels that could certainly positively influence their hopeful expectations for the future (Lobos et al., 2022). Thus, researchers interested in the subject have decided to identify the factors associated with positive expectations for the future (Iovu et al., 2018), such as shown in one study based on a review of available scientific literature and a situational analysis of young university students in the Peruvian context, where, it was found that some variables play an important role in the positive or negative development of future expectations, especially self-esteem, depression, and life satisfaction.

Regarding self-esteem, this construct is defined in terms of thoughts, perceptions, and feelings that lead to a personal self-evaluation, which entails a certain positive/negative evaluation that individuals make of themselves (Diaz, 2018). Recent research, such as that conducted by Jackman and MacPhee (2021), confirmed a direct and significant relationship between self-esteem and future considerations in North American adolescents. This result is consistent with other studies conducted on Spanish and Portuguese preadolescents, where a regression analysis evidenced the predictive capacity of positive self-perceptions on future expectations (Verdugo et al., 2018). Moreover, the work of Khampirat (2020) suggests that self-esteem can promote the development of a positive future orientation, which also helps foster greater professional aspirations.

As for depression, this construct is understood as an affective disorder where feelings of sadness, anger, and frustration appear, which interfere with daily life for a few days or longer durations (Jiang et al., 2022). Recently, it has been considered one of the most common psychological disorders suffered by the population during the COVID-19 pandemic, especially adolescents (Ran et al., 2020; Hafstad et al., 2021). It has been suggested that the gender difference regarding mental health among university students is not entirely consistent. Studies during the pandemic indicated that female college students showed higher levels of depressive symptoms (Gao et al., 2020), which was also observed in pre-pandemic periods (Sun

et al., 2017; Tung et al., 2018; Liu et al., 2019). However, it has also been suggested that men are more likely to experience depressive symptoms than women (Wong et al., 2006; Al-Qaisy, 2011). The latter suggests that being a woman would be a protective factor against depressive symptoms in university students (Gibson et al., 2016). The absence of the effect of gender on mental health states has also been indicated (Grant et al., 2002). There is evidence to assume a functional relationship between both variables in order to evaluate its relationship with future expectations (Almroth et al., 2019), this was demonstrated by Zetsche et al. (2019), who, by studying undergraduate students, identified individuals with clinical depression as having negatively biased expectations about their future mood, whereas healthy individuals exhibited realistic expectations about their future mood.

Finally, life satisfaction is defined as the positive assessment that individuals make of their life regarding particular aspects, such as family, studies, work, health, friends, and free time (Merino-Soto and Ruiz-del-Castillo, 2018). Regarding its relationship with future expectations, although there is no direct evidence to assume a functional relationship between both variables, a certain link can be inferred through what happened during the health emergency, where fear and anxiety related to COVID-19 have caused a negative perception of life satisfaction among young people (Doanh, 2021), especially in those at a low socioeconomic level (Engel de Abreu et al., 2021). This fact has come to cause concern about their professional training given the changes imposed by virtual education, generating uncertainty about the students’ future employment. Thus, for example, a study by Aucejo et al. (2020) showed repercussions in the experiences and expectations of college students in the United States, finding that 13% of respondents had had to delay graduation, 40% perceived that they had no chance of getting a job or an internship, and 29% expected to earn less by the age of 35.

By all accounts up to this point, university-age adolescents are one of the most affected populations by the COVID-19 pandemic. They still have to face the repercussions of changes in traditional education, as well as deal with the problems inherent to their current phase of life, such as strengthening their self-esteem, besides having to face and overcome difficulties that may lead to depression; finally to develop and maintain a positive perception of their satisfaction with life, despite the difficulties experienced during the COVID-19 pandemic. Considering the need to strengthen the self-confidence of future professionals from adolescence and that this can help in the achievement of professional goals with the probability of being able to fulfill them in the future (Verdugo et al., 2018), it is necessary to test an explanatory model where the role played by life satisfaction, self-esteem, and depression, on future expectations in the university population is clear. Based on this, the following research hypotheses are proposed.

1.1. Hypotheses

Three hypotheses were proposed (see Figure 1):

- H1: Self-esteem has a direct influence on future expectations
- H2: Life satisfaction directly influences future expectations
- H3: Depression indirectly influences future expectations

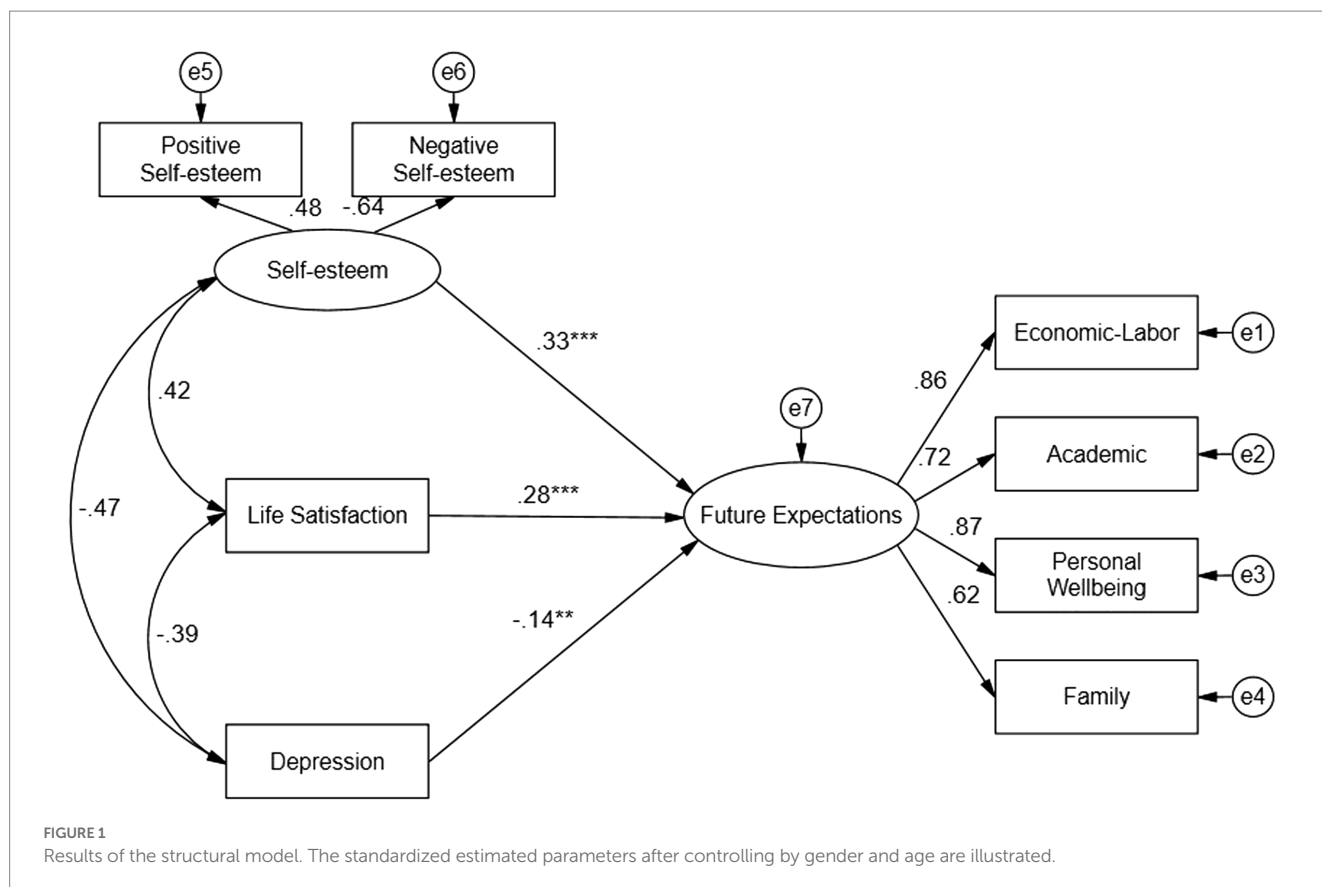


TABLE 1 Frequency and percentage characteristics of study participants.

Participant characteristics	n	%
Gender		
Male	249	35
Female	459	65
Age group		
From 16 to 20	409	58
From 21 to 30	253	36
from 31 to 47	46	6
Department		
Health Sciences	394	56
Business Sciences	167	24
Engineering and Architecture	121	17
Other	26	4
Total	708	100

The total percentages are not 100 for every characteristic because of rounding off.

1.2. Goal

The following are the objectives of this research study:

1. Determine whether self-esteem has a direct influence on future expectations
2. Determine whether life satisfaction has a direct influence on future expectations

3. Determine whether depression indirectly influences future expectations

2. Methodology

2.1. Design and participants

This work of research corresponds to an explanatory, cross-sectional study (Ato et al., 2013). The study comprised 708 university students from the Southern Region of Peru (both genders, 64.8% of whom were women) aged 16–47 years (M = 21.49; SD = 4.83). 55.6% were studying at the Faculty of Health Sciences, 23.6% at the Faculty of Business Sciences, 17.8% at the Faculty of Engineering and Architecture, and 3% at another. The number of participants was higher than that recommended to obtain meaningful results in Structural equation modeling (SEM) studies (sample between 100 to 400 people; Molwus et al., 2013). A total of 55.6% were from the school of health sciences. These results can be seen in greater detail in Table 1.

2.2. Measures

The Rosenberg self-esteem scale (EAR; Atienza et al., 2000a) validated in the Peruvian context by Ventura-León et al. (2018) comprises 10 items with four Likert-type response options: 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree. In the current study, the reliability of the scale was an acceptable $\alpha = 0.75$ (95% CI: 0.70–0.78).

Patient Health Questionnaire-2 (PHQ-2; Kroenke et al., 2003) is a questionnaire that evaluates cognitive and emotional aspects associated with depression, such as discouragement, disinterest, displeasure, and hopelessness. It presents only two items with a 4-point Likert-type response scale, from 0 (never) to 3 (almost every day). In the current study, the reliability of the PHQ-2 was an acceptable $\alpha=0.75$ (95% CI: 0.70–0.78). Although preliminary evidence of the PHQ-2 indicated it to be an effective screening for depression (Kroenke et al., 2003), there is evidence of false positives in low prevalence cases (Manea et al., 2016) thus its results should be taken with caution.

The Satisfaction with Life Scale (Diener et al., 1985) was translated into Spanish by Atienza et al. (2000b) and adapted to the Peruvian context by Caycho-Rodriguez et al. (2018). The scale comprises five items with 5-point Likert-type responses, where 1 is equivalent to totally disagree and 5 corresponds to totally agree. In the current study, the reliability of the scale was an acceptable $\alpha=0.75$ (95% CI: 0.70–0.78).

The Scale of Future Expectations of Adolescents (EEFA; Sánchez-Sandoval and Verdugo, 2016), was adapted to the Peruvian context by Arribasplata (2019). The scale comprises 14 items that analyze future expectations regarding the following dimensions: economic–labor expectations, academic expectations, personal well-being expectations, and family expectations. It presents construct validity by factor analysis (KMO=0.86) and reliability by internal consistency ($\alpha=0.85$). The response format is 5-point Likert-type (1 = I am sure it will not occur to 5 = I am sure it will occur). In this study, the reliability of the scale was acceptable $\alpha=0.75$ (95% CI: 0.70–0.78).

2.3. Procedure

The research was approved by the ethics committee of Universidad Peruana Unión with reference (2021-CEUPeU-0020). In this case, an online questionnaire was created using Google Forms; subsequently, university students were contacted through social networks (Facebook and WhatsApp), and they voluntarily answered the online questionnaire. Before completing the link, they were asked for their consent by employing an informed consent form. In addition, they were informed of the research goal, and it was emphasized that participation was voluntary and anonymous.

2.4. Statistical analysis

The data analysis was conducted with the “R” software, version 4.0.5 (R Development Core Team, 2007), and the “lavaan” library was used (Rosseel, 2012). Previously, the factor structure of the instruments was analyzed using the confirmatory factor analysis. The ordinal nature of the items was considered, so the polychoric correlation matrixes and the WLSMV estimator were used, which is suggested as being more suitable for the ordinal type measurement scale (Lei and Wu, 2012). The theoretical model of the study was analyzed with the MLM estimator, appropriate for numerical variables and for being robust to inferential normality deviations (Muthen and Muthen, 2017). The assessment of fit was done using the comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR). The values of CFI > 0.90 (Bentler, 1990), RMSEA < 0.080 (MacCallum et al., 1996), and SRMR < 0.080 (Browne and Cudeck, 1992) were used. The analysis of the theoretical model was

conducted by controlling the demographic variables of gender and age. Regarding the reliability analysis, the internal consistency method was used with the omega coefficient (ω).

3. Results

Initially, the internal structure of the scales of the variables under study was analyzed. In self-esteem, from the original 10-item structure, an inadequate fit was obtained, $\chi^2(34)=466.7$, $p<0.001$, CFI=0.966, RMSEA=0.134, for which, after the revision of the fit indices, four items (4, 5, 7, and 8) were removed, obtaining an adequate fit, $\chi^2(8)=11.9$, $p=0.157$, CFI=0.999, RMSEA=0.026, and SRMR=0.019. Item removal on the Rosenberg self-esteem scale was previously practiced in several studies in which items were also removed (e.g., Mayordomo et al., 2020; Sánchez-Villena et al., 2021). In life satisfaction, the initial adjustment was not adequate, $\chi^2(5)=43.5$, $p<0.001$, CFI=0.989, RMSEA=0.104, and SRMR=0.028, for which, after removing item 5, an adequate adjustment was obtained, $\chi^2(2)=10.3$, $p=0.006$, CFI=0.997, RMSEA=0.076, and SRMR=0.016. The removal of this item is justified because the double negation phrasing could cause difficulties in interpretation. In addition, there are several studies where the error covariance of this item 5 with item 4 is shown as an alternative model (Jovanović et al., 2022). Finally, in future expectations, there was an adequate adjustment in the initial model, $\chi^2(71)=353.4$, $p<0.001$, CFI=0.979, RMSEA=0.075, and SRMR=0.042.

Once the structures of the scales were determined and confirmed, the dimension scores were obtained, which were scaled to have values between 0 and 30. Table 2 presents the correlation matrix of the study variables and their descriptive results. In addition, this table presents the descriptive information and internal consistencies of each of the study variables, with values between 0.77 and 0.93.

In the analysis of the theoretical model, controlled by gender and age, an adequate fit was obtained, $\chi^2(25)=118.6$, $p<0.001$, CFI=0.940, RMSEA=0.073, with H1 on the direct relationship of self-esteem with future expectations, $\beta=0.33$, $p<0.001$, H2 on the relationship between life satisfaction and future expectations, $\beta=0.28$, $p<0.001$, and H3 on the inverse relationship between depression and future expectations, $\beta=-0.14$, $p=0.010$. In addition, the variability explained in future expectations was 36%. The standardized solution of the final model is presented in Figure 1.

4. Discussion

Regarding the goals and the confirmation of the research hypotheses, we first set out to determine whether self-esteem has a direct influence on future expectations, and a direct and significant effect was found as a result ($\beta=0.33$). Therefore, the first research hypothesis is accepted. Second, we set out to determine whether life satisfaction has a direct influence on future expectations, and a direct and significant effect was obtained as a result ($\beta=0.28$). Therefore, the second research hypothesis is accepted. Finally, we set out to determine whether depression indirectly influences future expectations, and an indirect and significant effect was obtained as a result ($\beta=-0.14$). Therefore, the third research hypothesis is also accepted.

Regarding the main findings, first, we observed that self-esteem positively influences the future expectations of university students.

TABLE 2 Descriptive statistics, internal consistencies, and correlations for demographic variables and self-esteem, depression, life satisfaction, and future expectations.

Variables	<i>M</i>	<i>DE</i>	ω	1	2	3	4	5	6	7	8	9	10
1. Gender	–	–	–	–									
2. Age	–	–	–	–0.26	–								
3. Positive Self-esteem	22.5	6.9	0.93	–0.02	0.18	–							
4. Negative Self-esteem	10.3	7.2	0.80	–0.03	–0.14	–0.30	–						
5. Depression	7.4	7.6	0.77*	0.09	–0.05	–0.12	0.36	–					
6. Life Satisfaction	19.5	5.9	0.86	0.03	–0.07	0.25	–0.24	–0.39	–				
7. Economic/Labor Expectations	26.3	4.8	0.93	0.07	0.02	0.23	–0.28	–0.33	0.41	–			
8. Academic Expectations	25.9	4.3	0.87	0.12	–0.06	0.22	–0.20	–0.22	0.34	0.66	–		
9. Personal Well-being Expectations	26.2	5.0	0.89	0.07	0.06	0.25	–0.27	–0.37	0.42	0.73	0.62	–	
10. Family Expectations	23.0	6.7	0.88	–0.08	0.17	0.13	–0.17	–0.29	0.31	0.52	0.38	0.58	–

*Since there were only two items in depression, it was decided to calculate the alpha coefficient for this variable.

These results are similar to those reported in previous studies, where self-esteem positively correlated with the future expectations of 11- to 15-year-old adolescents in Spain (Sánchez-Sandoval and Verdugo, 2016). In another study, it was possible to prove its predictive capacity in a sample of Spanish and Portuguese preadolescents (Verdugo et al., 2018). Added to this, Khampirat (2020) argues that the development of positive future directions and higher levels of career aspiration can be explained by the level of self-worth developed by each individual. Second, life satisfaction was found to positively influence future expectations. This is in line with the results in the scientific literature. For example, a study conducted with adolescents concluded that life satisfaction is considered an indicator of subjective well-being, which has a direct relationship with positive future expectations (Karaca et al., 2016), and another study conducted with adolescents and youth between 12 and 28 years old found that life satisfaction explains 30% of positive future expectations (Sánchez-Sandoval et al., 2022).

Third, we found depression in students to negatively affect future expectations. These results seem to align with the findings reported by Zetsche et al. (2019), where expectations and memories were found to be related to the depressive state or that people with a depression diagnosis have negatively biased expectations about their future mood when compared with healthy people. Moreover, a fact that does not go unnoticed is the preponderance of women suffering depression, given that in the present research, women are more represented in the collected sample. In this regard, the hypothesis of gender difference in self-reporting depression symptoms has already been well-reported in other studies (Shi et al., 2021). However, some researchers find little evidence of the relationship between depression and expectations and even suggest empirically analyzing the hypothesis that people with major depression disorders may maintain their expectations despite experiences contrary to these expectations (Kube et al., 2017).

Future expectations of university students constitute an open field for psychological research in terms of the implications of these results and future lines of research. There is more knowledge about the relationships between self-esteem, depression, and life satisfaction and

few extant studies about their associations with future expectations. However, the results of this study suggest that the future expectations of university students may be affected by self-esteem, depression, and life satisfaction, thus establishing a basis for future research and for establishing new proposals for psychological intervention. Future expectations are a fundamental part of human existence because they provide meaning in life, especially in younger people, and should be strengthened with evidence-based actions. While one of the most significant problems experienced during the COVID-19 pandemic was fear, the findings of the present study may suggest that college students were optimistic regarding their future expectations despite present uncertainties about the future (Büyükbayram and Citlik Saritas, 2022).

Despite the interesting results, this study has some limitations. First, the participants were selected using non-probabilistic sampling, which does not allow us to generalize the results to the entire population of Peruvian university students. Thus, it is suggested that future studies use probability sampling and samples that are more representative of the Peruvian university population. Second, self-reporting measures were used to collect information. This opens the possibility of the presence of social desirability biases. Third, an online survey was used, which generates a sampling bias as only those people with Internet access and experience with responding to this type of survey would participate, leaving out university students from areas with difficulty accessing the Internet. Fourth, a multigroup analysis of the model by gender and age was not performed, due to the differences in sample size between the groups. This type of procedure could show different behavior between groups, an analysis that we recommend considering in future studies replicating the study model.

5. Conclusion

In conclusion, future expectations can be affected by low levels of self-esteem, low levels of life satisfaction, and high levels of depression.

The results have important implications for research and practice in the context of university life. Depression, self-esteem, and life satisfaction play an important role in understanding the future expectations of university students and provide a guide for the design of intervention and prevention strategies. This information could be used by professionals in charge of psychological and pedagogical counseling services at universities or other professionals to design intervention programs that support the future expectations of university students by improving their university functioning and psychosocial adjustment. In this sense, decreasing depressive symptoms and increasing levels of self-esteem and life satisfaction would help strengthen the future expectations of university students. In addition, understanding how adolescents perceive their present and future can serve as a basis for developing effective strategies to protect them from high-risk behaviors. Thus, the university becomes an important setting in which professionals can develop and deliver interventions. The work of higher education institutions must go beyond the simple teaching of intellectual skills and develop beliefs and self-regulation capabilities of their students. Changes in the university stage can have major impacts on students' beliefs about their abilities to succeed in many areas of their lives. Thus, it is essential that university students believe in themselves and trust in their own abilities to build a healthy life project for their psychosocial well-being in the future. Investing in university youth will empower them to achieve a more positive future and build healthy homes and safer communities (Sipsma et al., 2012).

Data availability statement

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

References

- Alm, S., Låftman, S. B., Sandahl, J., and Modin, B. (2019). School effectiveness and students' future orientation: a multilevel analysis of upper secondary schools in Stockholm, Sweden. *J. Adolesc.* 70, 62–73. doi: 10.1016/j.adolescence.2018.11.007
- Almroth, M., László, K. D., Kosidou, K., and Galanti, M. R. (2019). Academic expectations and mental health in adolescence: a longitudinal study involving parents' and their Children's perspectives. *J. Adolesc. Health* 64, 783–789. doi: 10.1016/j.jadohealth.2018.11.015
- Al-Qaisy, L. M. (2011). The relation of depression and anxiety in academic achievement among group of university students. *Int. J. Psychol. Couns.* 3, 96–100.
- Arribasplata, P. Y. (2019). *Análisis psicométrico de la Escala de Expectativas de Futuro en Adolescentes de Instituciones Educativas, El Porvenir*. Trujillo: Universidad César Vallejo.
- Atienza, F. L., Moreno, Y., and Balaguer, I. (2000a). Análisis de la dimensionalidad de la Escala de Autoestima de Rosenberg en una muestra de adolescentes valencianos. *Rev. Psicol. Univ. Tarracon* 22, 29–42.
- Atienza, F. L., Pons, D., Balaguer, I., and GarcíaMerita, M. (2000b). Propiedades psicométricas de la Escala de Satisfacción con la Vida en adolescentes. *Psicothema*, 12, 314–319. <https://reunido.uniovi.es/index.php/PST/article/view/7597>
- Ato, M., López-García, J. J., and Benavente, A. (2013). Un sistema de clasificación de los diseños de investigación en psicología. *Anal. Psicol.* 29, 1038–1059. doi: 10.6018/analesps.29.3.178511
- Aucejo, E. M., French, J., Ugalde Araya, M. P., and Zafar, B. (2020). The impact of COVID-19 on student experiences and expectations: evidence from a survey. *J. Public Econ.* 191:104271. doi: 10.1016/j.jpubeco.2020.104271
- Bentler, P. (1990). Comparative fit indexes in structural models. *Psychol. Bull.* 107, 238–246. doi: 10.1037/0033-2909.107.2.238
- Browne, M. W., and Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociol. Methods Res.* 21, 230–258. doi: 10.1177/0049124192021002005
- Büyükbayram, Z., and Citlik Saritas, S. (2022). The effects of fear of COVID-19 on future expectations in nursing students in Turkey. *OMEGA-J. Death Dying* 00302228221090760:003022282210907. doi: 10.1177/00302228221090760
- Caycho-Rodríguez, T., Ventura-León, J., García Cadena, C. H., Barboza-Palomino, M., Arias Gallegos, W. L., DominguezVergara, J., et al. (2018). Psychometric evidence of the Diener's Satisfaction with Life Scale in Peruvian elderly. *Rev. Cienc. Salud* 16, 473–491. doi: 10.12804/revistas.urossario.edu.co/revsalud/a.7267
- Díaz, D. (2018). Adolescencia y autoestima: su desarrollo desde las instituciones educativas. *Rev. Conrado* 14, 98–103.
- Diener, E. D., Emmons, R. A., Larsen, R. J., and Griffin, S. (1985). The satisfaction with life scale. *J. Pers. Assess.* 49, 71–75. doi: 10.1207/s15327752jpa4901_13
- Doanh, C. (2021). The impact of fear and anxiety of Covid-19 on life satisfaction: psychological distress and sleep disturbance as mediators. *Personal. Individ. Differ.* 178:110869. doi: 10.1016/j.paid.2021.110869
- Engel de Abreu, P. M. J., Neumann, S., Wealer, C., Abreu, N., Coutinho Macedo, E., and Kirsch, C. (2021). Subjective well-being of adolescents in Luxembourg, Germany, and Brazil during the COVID-19 pandemic. *J. Adolesc. Health* 69, 211–218. doi: 10.1016/j.jadohealth.2021.04.028
- Gan, T. Y., Beevi, Z., Low, J., Lee, P. J., and Hall, D. A. (2022). Developing future-ready university graduates: nurturing wellbeing and life skills as well as academic talent. *Front. Psychol.* 13:827517. doi: 10.3389/fpsyg.2022.827517
- Gao, W., Ping, S., and Liu, X. (2020). Gender differences in depression, anxiety, and stress among college students: a longitudinal study from China. *J. Affect. Disord.* 263, 292–300. doi: 10.1016/j.jad.2019.11.121
- Geven, S., Wiborg, Ø., Fish, R., and van de Werfhorst, H. G. (2020). How teachers form educational expectations for students: a comparative factorial survey experiment in three institutional contexts. *Soc. Sci. Res.* 100:102599. doi: 10.1016/j.ssresearch.2021.102599

Ethics statement

The studies involving human participants were reviewed and approved by Comité de ética de la Universidad Peruana Unión. The patients/participants provided their written informed consent to participate in this study.

Author contributions

OM-B, RC, and RC-B conceived and designed the experiments, performed the experiments, analyzed and interpreted the data, and wrote the paper. TC-R, PR, MT-B, and RA contributed reagents, materials, analysis tools, and 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.

- Gibson, P. A., Baker, E. H., and Milner, A. N. (2016). The role of sex, gender, and education on depressive symptoms among young adults in the United States. *J. Affect. Disord.* 189, 306–313. doi: 10.1016/j.jad.2015.08.067
- Grant, K., Marsh, P., Syniar, G., Williams, M., Addlesperger, E., Kinzler, M. H., et al. (2002). Gender differences in rates of depression among undergraduates: measurement matters. *J. Adolesc.* 25, 613–617. doi: 10.1006/jado.2002.0508
- Hafstad, G. S., Sætren, S. S., Wentzel-Larsen, T., and Augusti, E.-M. (2021). Adolescents' symptoms of anxiety and depression before and during the Covid-19 outbreak—a prospective population-based study of teenagers in Norway. *Lancet Regional Health - Europe* 5:100093. doi: 10.1016/j.lanepe.2021.100093
- Iovu, M. B., Hărăguș, P. T., and Roth, M. (2018). Constructing future expectations in adolescence: relation to individual characteristics and ecological assets in family and friends. *Int. J. Adolesc. Youth* 23, 1–10. doi: 10.1080/02673843.2016.1247007
- Jackman, D. M., and MacPhee, D. (2021). Self-esteem and future orientation predict adolescents' risk engagement. *J. Early Adolesc.* 37, 339–366. doi: 10.1177/2F0272431615602756
- Jiang, Z., Jia, X., Tao, R., and Dördüncü, H. (2022). COVID-19: a source of stress and depression among university students and poor academic performance. *Front. Public Health* 10:898556. doi: 10.3389/fpubh.2022.898556
- Jovanović, V., Rudnev, M., Arslan, G., Buzea, C., Dimitrova, R., Góngora, V., et al. (2022). The satisfaction with life scale in adolescent samples: measurement invariance across 24 countries and regions, age, and gender. *Appl. Res. Qual. Life* 17, 2139–2161. doi: 10.1007/s11482-021-10024-w
- Karaca, S., Karakoc, A., Bingol, F., Eren, N., and Andsoy, I. I. (2016). Comparison of subjective wellbeing and positive future expectations in between working and nonworking adolescents in Turkey. *Iran Red Crescent Med J* 18:e21055. doi: 10.5812/IRCMJ.21055
- Khampirat, B. (2020). The relationship between paternal education, self-esteem, resilience, future orientation, and career aspirations. *PLoS One* 15:e0243283. doi: 10.1371/journal.pone.0243283
- Kroenke, K., Spitzer, R. L., and Williams, J. B. W. (2003). The patient health questionnaire-2: validity of a two-item depression screener. *Med. Care* 41, 1284–1292. doi: 10.1097/01.MLR.0000093487.78664.3C
- Kube, T., Rief, W., and Glombiewski, J. A. (2017). On the maintenance of expectations in major depression - investigating a neglected phenomenon. *Front. Psychol.* 8, 1–7. doi: 10.3389/fpsyg.2017.00009
- Lei, P. W., and Wu, Q. (2012). "Estimation in structural equation modeling" in *Handbook of structural equation modeling*. ed. R. H. Hoyle (The Guilford Press), 164–180.
- Liu, Y., Zhang, N., Bao, G., Huang, Y., Ji, B., Wu, Y., et al. (2019). Predictors of depressive symptoms in college students: a systematic review and meta-analysis of cohort studies. *J. Affect. Disord.* 244, 196–208. doi: 10.1016/j.jad.2018.10.084
- Lobos, K., Cobo-Rendón, R., Mella-Norambuena, J., Maldonado-Trapp, A., Fernández, C., and Bruna, C. (2022). Expectations and experiences with online education during the COVID-19 pandemic in university students. *Front. Psychol.* 12:815564. doi: 10.3389/fpsyg.2021.815564
- MacCallum, R. C., Browne, M. W., and Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling of fit involving a particular measure of a model. *Psychol. Methods* 13, 130–149. doi: 10.1037/1082-989X.1.2.130
- Manea, L., Gilbody, S., Hewitt, C., North, A., Plummer, F., Richardson, R., et al. (2016). Identifying depression with the PHQ-2: a diagnostic meta-analysis. *J. Affect. Disord.* 203, 382–395. doi: 10.1016/j.jad.2016.06.003
- Mayordomo, T., Gutierrez, M., and Sales, A. (2020). Adapting and validating the Rosenberg self-esteem scale for elderly Spanish population. *Int. Psychogeriatr.* 32, 183–190. doi: 10.1017/S1041610219001170
- Merino-Soto, C., and Ruiz-del-Castillo, C. (2018). Explorando el vínculo de la inteligencia emocional y la satisfacción con la vida en adultos peruanos. *Ansiedad y Estrés* 24, 140–143. doi: 10.1016/j.anyes.2018.03.004
- Molwus, J. J., Erdogan, B., and Ogunlana, S. O. (2013). Sample size and model fit indices for structural equation modelling (SEM): The case of construction management research. *International Conference on Construction and Real Estate Management* 2013, 338–347.
- Muthén, L. K., and Muthén, B. (2017). *Mplus user's guide: Statistical analysis with latent variables, user's guide*. 8th Edn. Los Angeles, CA: Muthén & Muthén.
- R Development Core Team (2007). *R: A language and environment for statistical computing [programa informático]*. Viena: R Foundation for Statistical Computing. <http://cran.r-project.org/>
- Ran, L., Wang, W., Ai, M., Kong, Y., Chen, J., and Kuang, L. (2020). Psychological resilience, depression, anxiety, and somatization symptoms in response to COVID-19: a study of the general population in China at the peak of its epidemic. *Soc. Sci. Med.* 262:113261. doi: 10.1016/j.socscimed.2020.113261
- Rossee, Y. (2012). Lavaan: an R package for structural equation modeling. *J. Stat. Softw.* 48, 1–93. doi: 10.18637/jss.v048.i02
- Sánchez-Sandoval, Y., and Verdugo, L. (2016). Desarrollo y validación de la Escala de Expectativas de Futuro en la Adolescencia (EEFA). *Anales Psicología* 32, 545–554. doi: 10.6018/analesps.32.2.205661
- Sánchez-Sandoval, Y., Aragón, C., and Verdugo, L. (2022). Future expectations of adolescents in Residential Care: The role of self-perceptions. *Child Youth Serv Rev* 143:106686. doi: 10.1016/j.chilcyouth.2022.106686
- Sánchez-Villena, A. R., de La Fuente-Figuerola, V., and Ventura-León, J. (2021). Modelos factoriales de la Escala de Autoestima de Rosenberg en adolescentes peruanos. *Rev. Psicop. Pisco. Clin* 26, 47–55. <https://pdfs.semanticscholar.org/c361/c471f994239c9a5b5814be96879328a376f8.pdf>
- Sheng, L., Dai, J., and Lei, J. (2022). The impacts of academic adaptation on psychological and sociocultural adaptation among international students in China: the moderating role of friendship. *Int. J. Intercult. Relat.* 89, 79–89. doi: 10.1016/j.ijntrel.2022.06.001
- Shi, P., Yang, A., Zhao, Q., Chen, Z., Ren, X., and Dai, Q. (2021). A hypothesis of gender differences in self-reporting symptom of depression: implications to solve under-diagnosis and under-treatment of depression in males. *Front. Psychol.* 12:589687. doi: 10.3389/fpsyg.2021.589687
- Sipsma, H. L., Ickovics, J. R., Lin, H., and Kershaw, T. S. (2012). Future expectations among adolescents: a latent class analysis. *Am. J. Community Psychol.* 50, 169–181. doi: 10.1007/s10464-011-9487-1
- Sun, X. J., Niu, G. F., You, Z. Q., Zhou, Z. K., and Tang, Y. (2017). Gender, negative life events and coping on different stages of depression severity: a cross-sectional study among Chinese university students. *J. Affect. Disord.* 209, 177–181. doi: 10.1016/j.jad.2016.11.025
- Tung, Y. J., Lo, K. K., Ho, R. C., and Tam, W. S. W. (2018). Prevalence of depression among nursing students: a systematic review and meta-analysis. *Nurse Educ. Today* 63, 119–129. doi: 10.1016/j.nedt.2018.01.009
- Ventura-León, J., Caycho-Rodríguez, T., BarbozaPalomino, M., and Salas, G. (2018). Evidencias psicométricas de la escala de autoestima de Rosenberg en adolescentes limeños. *Interam J Psychol* 52, 44–60. doi: 10.30849/rip/ijp.v52i1.363
- Verdugo, L., Sánchez-Sandoval, Y., and Freire, T. (2018). Understanding the connections between self-perceptions and future expectations: a study with Spanish and Portuguese early adolescents. *Rev. Psicod.* 23, 39–47. doi: 10.1016/j.psicod.2017.07.005
- Wong, J. G., Cheung, E. P., Chan, K. K., Ma, K. K., and Wa Tang, S. (2006). Web-based survey of depression, anxiety and stress in first-year tertiary education students in Hong Kong. *Austral. N. Zea. J. Psychiatry* 40, 777–782. doi: 10.1080/j.1440-1614.2006.01883.x
- Zetsche, U., Bürkner, P., and Renneberg, B. (2019). Future expectations in clinical depression: biased or realistic? *J. Abnorm. Psychol.* 128, 678–688. doi: 10.1037/ABN0000452