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## Self-Esteem and Family Communication as Predictors of Satisfaction with Studies in University Students from the Southern Region of Peru

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### Abstract

Family and personal factors play an essential role in the satisfaction with the studies of university students. In this sense, the objective of this research was to determine if self-esteem and family communication predict satisfaction with studies in university students from the Puno Region, Peru. The methodology consisted of a cross-sectional and predictive design; 538 Peruvian university students of both sexes participated (69.1% men and 30.09% women) in 2022, whose ages ranged between 17 and 37 years ( $M = 20.43$  and  $SD = 3.22$ ). The instruments used were the Rosenberg self-esteem scale, the Olson Family Communication Scale (FCS), and the Merino Satisfaction Scale with the study. The results show that the proposed model had a good fit ( $X^2 = 582.26$ ,  $df = 224$ ,  $p < .001$ ,  $TLI = .941$ ,  $CFI = .948$ ,  $RMSEA = .055$ ,  $RMR = .041$ ), evidencing that self-esteem and family communication significantly predict ( $p < .001$ ) satisfaction with the studies. In the discussion it is observed that self-esteem and family communication are significant predictors of satisfaction with studies in university students. Therefore, strategies to improve satisfaction with studies should be aimed at improving the self-esteem and communication of university students.

### Keywords

Self-esteem, family communication, satisfaction with studies, university students, Peru

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## Resumen

Existen factores familiares y personales que juegan un rol importante en la satisfacción con los estudios de los estudiantes universitarios. En este sentido, el objetivo de esta investigación fue determinar si la autoestima y la comunicación familiar predicen la satisfacción con los estudios en estudiantes universitarios de la Región Puno, Perú. La metodología consistió en un diseño transversal y predictivo participaron 538 estudiantes universitarios peruanos de ambos sexos (69,1% hombres y 30,09% mujeres) el año 2022, cuyas edades oscilaron entre los 17 y 37 años ( $M = 20,43$  y  $DT = 3,22$ ). Los instrumentos utilizados fueron la escala de autoestima de Rosenberg, la escala de comunicación familiar (ECF) de Olson y la escala de satisfacción con el estudio de Merino. Los resultados muestran que el modelo propuesto tuvo un buen ajuste ( $X^2 = 582,26$ ,  $gl = 224$ ,  $p < .001$ ,  $TLI = 941$ ,  $CFI = .948$ ,  $RMSEA = .055$ ,  $RMR = .041$ ) evidenciando que la autoestima y la comunicación familiar predicen significativamente ( $p < .001$ ) la satisfacción con los estudios. En la discusión se observa que la autoestima y la comunicación familiar son predictores significativos de la satisfacción con los estudios en estudiantes universitarios. Por lo tanto, las estrategias para mejorar la satisfacción con los estudios deben direccionarse a mejorar la autoestima y la comunicación de los estudiantes universitarios

## Palabras clave

Autoestima, comunicación familiar, satisfacción con los estudios, universitarios, Perú

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The COVID-19 pandemic has affected public health worldwide (Oh et al., 2021). Consequently, there were repercussions on people's lifestyles, work, and relationships with others (Odeh, 2021). For this reason, the population, in general, had to adapt to a new normality, especially university students, because social and academic gatherings were prohibited due to the restrictions during the health emergency. Consequently, face-to-face university classes were interrupted (Al-Azzam et al., 2020), and teaching changed to online education (Sokal et al., 2020).

In such a scenario, various reports show the impact on the perception of academic satisfaction during online classes (Amir et al., 2020). For example, a study revealed that the university experience was not the same as the traditional context, where activities were carried out on the university campus, classrooms, libraries, and laboratories, among other places of learning (Muthuprasad et al., 2021). Precisely, one of the variables that represent the level of affectation in this population is the perception of satisfaction with the studies, which can be defined as the feeling of well-being and enjoyment that students experience when their academic expectations are met as a result of activities carried out by the institution to meet their educational needs (Merino-Soto et al., 2017).

According to some research, being academically satisfied significantly impacts the online learning process (Yekefallah et al., 2021). Therefore, it must be clear that this variable acts as a mediator between the quality of service and student loyalty (Borishade et al., 2021), relevant aspects for educational institutions since student satisfaction is an indicator of the quality of higher education (Rossini et al., 2021).

It is pertinent to analyze, knowing the importance and benefits of perceiving a good level of satisfaction with the studies, which are the predictors of this variable; thus, in the literature, it can be seen that many variables have shown evidence to predict the level of student satisfaction. In this way, researchers have focused their attention on factors such as educational quality, virtual study resources, teacher support, quality of virtual academic platforms, and coping strategies for stress (Kapasias et al., 2022; Mamani-Benito et al., 2021; Yekefallah et al., 2021), among others. However, there are potentially predictive variables that have not yet been considered, such as self-esteem and family communication, which in times of health crisis have proven to be vital factors to continue with the professional training process, even in challenging and discouraging circumstances due to the severity of the disease and the precariousness of educational systems in countries such as Peru.

The self-esteem variable is defined as the degree to which an individual shows appreciation for himself based on conscious, self-assessing feelings and considerations (Abdulghani et al., 2020). De esta manera cumple una función importante en el desarrollo de la personalidad, motivación y fortalecimiento de la salud mental. Like self-concept, which is adjusted hierarchically and in several dimensions that represent an inference about oneself in different categories or broader areas, it is possible to think of self-esteem as general, social, family, and academic (Kumar Jaiswal & Choudhuri, 2017). Precisely, the latter is what shows the level of acceptance with which a person values their teaching-learning process, that is, it demonstrates to what extent an individual values their own academic abilities and the perception that others have of this understanding (Ahmadi, 2020). In this case, previous studies report the value of self-esteem in the university environment (Abdulghani et al., 2020), for example, during the

confinement due to the impact of COVID-19, the increase in the frequency of use of social networks such as Instagram, Facebook, or Twitter caused in some groups an inadequate perception of body satisfaction and an alteration in the perception of valuation staff (Pyszczyński et al., 2021), issues that have come to indirectly affect the perception of being satisfied with the new virtual learning modality.

Although the evidence on the relationship between self-esteem and satisfaction with studies had already been shown before the arrival of the COVID-19 pandemic (Ja Park & Seek Lee, 2016), in recent studies, the findings lead us to assume that self-esteem also plays a mediating role between important socio-emotional variables for the academic environment, such as empathy and satisfaction with studies (Usán et al., 2023). On the other hand, new findings suggest that self-esteem becomes a key factor in improving academic engagement, an important indicator of students who show a pleasant state when their learning expectations are met (Zhao et al., 2021).

In this research, it is not possible to assume that self-esteem is the only factor that acts as a predictor of satisfaction with studies; instead, it is interesting to recognize the interaction and correspondence that self-esteem has with other variables, such as family communication, which is defined as the degree to which families create a climate in which all family members are encouraged to engage in unbridled interaction, as well as the degree to which family communication emphasizes a climate of homogeneity of attitudes, values, and beliefs (Koerner & Fitzpatrick, 2002).

Sznitman et al. (2019) found connections between self-esteem, family climate, and family communication, as KavehFarsani et al. (2020), who reported that family communication directly affects psychological well-being in adolescents and that family communication and body image satisfaction indirectly affect self-esteem. In the same line, (Castro Castañeda et al., 2021) demonstrated a direct relationship between communication with the father and mother, where low self-esteem was related to high levels of offensive communication with both the father and the mother.

In this way, the authors propose that family communication is another variable that indirectly affects the perception of satisfaction with studies. Regarding this fact, previous studies show that students with emotional difficulties due to family conflicts were less satisfied in the academic field (Mostert & Pienaar, 2020). On the other hand, Curran y Allen (2017) revealed that the personalization of the interactions of the conflicts linked to family communication patterns affected the psychological health of university students. Franzen et al., (2021), who analyzed the construct of satisfaction with studies in 2835 students, revealed that the lowest scores of academic satisfaction were strongly associated with conflicting emotions resulting from family interaction.

Although the studies carried out provide relevant information to understand the functional relationship between self-esteem, family communication and satisfaction with life, it is still not possible to infer predictive models where two or more independent variables exist at the same time, that is, Most studies only allow us to make inferences about the effect of an independent variable on life satisfaction. This limits the ability to understand the multiple causes of a positive or negative perception in the area of life satisfaction; Therefore, the present study aims to fill this gap in the scientific literature by proposing a multivariate analysis where the joint effect of self-esteem and family communication on life satisfaction is seen.

Although the theoretical analysis of self-esteem leads us to think that it would be better to work with academic self-esteem instead of general self-esteem, the lack of instruments validated in the Peruvian context and other theoretical issues has been decisive for researchers to choose to work with the general self-esteem variable. In addition to this, it is worth emphasizing that the Rosenberg self-esteem scale is one of the most recognized worldwide for its applications in research to understand self-esteem in terms of an attitude towards oneself in a general way, and not so much by dimensions (García et al., 2019).

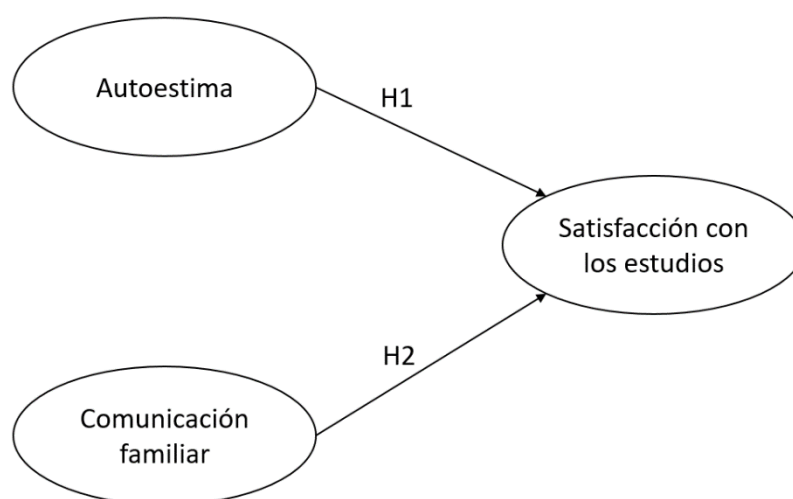
Based on the above, the following hypotheses are proposed (Figure 1):

**H1:** Self-esteem directly predicts satisfaction with studies

**H2:** Family communication directly predicts satisfaction with studies

**Figure 1**

*Theoretical Model*



### Objective

Therefore, the objective of the present study was to determine whether self-esteem and family communication are predictors of satisfaction with studies in university students in the Puno Region.

### Method

The present study follows the guidelines of a predictive design because it allows knowing the predictive capacity of self-esteem and family communication (independent variables) on satisfaction with studies (dependent variable). It is also cross-sectional because the information will be obtained simultaneously (Ato et al., 2013).

## Participants

Through an intentional non-probabilistic sampling, 538 university students participated voluntarily from a private University in the city of Juliaca in 2022, from the Puno región; of both sexes (Male = 69.1%) whose ages are between 17 and 37 years old ( $M = 20.43$ ,  $DS = 3.22$ ), 66.5% indicated that they were studying courses at the Faculty of Human Sciences and Education. All students were at the undergraduate level.

## Instruments

Ventura et al. (2018) (2018) validated Rosenberg's Self-esteem Scale in the Peruvian context. It is organized by 10 items distributed in two dimensions (positive self-esteem and negative self-esteem), whose response options are: 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree. The scale has proven to be valid ( $CFI = .997$  and  $RMSEA = .020$ ) and reliable ( $\omega = >.80$ ).

The Family Communication Scale (FCS) was validated in Peruvian university students by Copez-Lonzoy et al. (2016). The FCS presents a one-dimensional model of 10 items with Likert-type response options, where 1 is very dissatisfied, and 5 is very satisfied. The scale is valid ( $CFI = .995$ ,  $AGFI = .992$  and  $RMSEA = .000$ ) and reliable ( $\alpha = .88$ ).

Education Satisfaction Scale (EBSE) has been designed by Merino et al. (Merino-Soto et al., 2017) for Peruvian university students. It has a one-dimensional structure and is composed of 5 items, with Likert-type response options ranging from 1 = strongly disagree to 5 = strongly agree. The EBSE is valid ( $CFI=0.92$ ,  $GFI=0.99$  and  $RMSR=0.053$ ) and reliable ( $\alpha = .78$ ).

## Procedure

Due to the situation caused by the COVID-19 Pandemic, the collection of information was carried out in a virtual format. The online questionnaire was conducted using Google Forms; then, it was shared through the WhatsApp and Facebook groups of the university students. It is appropriate to point out that, in the first part of the link, the objective of the study is presented, the approval of the informed consent is requested, it is emphasized that participation is voluntary and that all the information collected is anonymous and is only used for research purposes. The approximate time to complete the questionnaire was 8 minutes.

## Data Analysis

The study model was analyzed by modeling structural equations with the Robust Maximum Likelihood (MLR) estimators with robust standard errors was used, which is known to be robust to potential data non-normality (Muthen & Muthen, 2017; Wang & Wang, 2019). The fit assessment was performed using the comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR). CFI values were used  $> .90$  (Bentler, 1990),  $RMSEA < .080$ , and  $SRMR < .080$  (Browne & Cudeck, 1992). For the reliability analysis, the alpha internal consistency method was used ( $\alpha$ ).



For the specification of the model, it was determined to carry out parceling (adding the items by means of sum or averages to form a new indicator) in the study variables considering that the parcels could be acceptable indicators of the latent construct in conditions of adequate psychometric properties and, particularly, when the structural aspects of unidimensionality have been evidenced in previous studies (Hagtvet & Nasser, 2004; Matsunaga, 2008). Thus, this procedure was carried out based on the support of previous psychometric studies of the study variables.

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).

### Ethical Aspects

The Ethics Committee of the Graduate School of the Universidad Peruana Unión CE-EPG-000056 approved the study.

### 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 correlation results that lie between -.22 and .40 for the study variables. In addition, this table also shows the internal consistency coefficients alpha, which was found between the values of .80 and .92.

**Table 1**

*Descriptive Statistics, Internal Consistencies, and Correlations for the Study Variables*

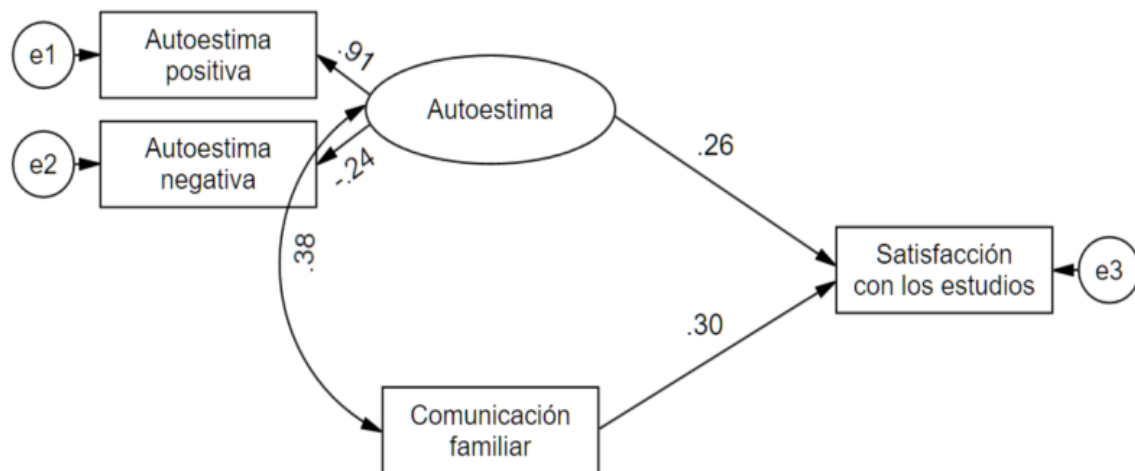
Variables	<i>M</i>	<i>DE</i>	<i>A</i>	$\alpha$	1	2	3	4
1. Positive self-esteem	22.2	6.3	-0.9	.90	–			
2. Negative self-esteem	12.1	7.6	0.4	.80	-.22***	–		
3. Family communication	20.2	5.6	-1.0	.92	.35***	-.11*	–	
4. Satisfaction with studies	26.5	8.9	-0.5	.89	.35***	-.07	.40***	–

\*\*\* $p < .001$ . \*\* $p < .010$ . \* $p < .050$ .

In the analysis of the proposed model, an adequate adjustment was obtained,  $\chi^2 (1) = 0.5$ ,  $p = .479$ , CFI = 1.00, RMSEA = .000, SRMR = .008. In the model, H1 and H2 were confirmed on the predictive effect on satisfaction with self-esteem studies,  $\beta = .26$ ,  $p = .035$ , and family communication,  $\beta = .30$ ,  $p < .001$ . Finally, an explained variability of 22% in satisfaction with the studies was also obtained. These results can be viewed in Figure 2.

**Figure 2**

*Results of the Predictive Structural Model of Satisfaction with Studies. Standardized Parameter Estimates are Shown*



## Discusión

University academic life represents significant challenges, both physical, social, and academic (Lohani et al., 2022). These challenges were more significant due to the COVID-19 pandemic, where stressors such as anxiety and depressive symptoms increased, which decreased student satisfaction (Debnath & Chetia, 2022). Likewise, the study reports that confinement and virtualization could reduce the motivation and satisfaction of university students (Irigoyen, 2023) as well as teachers (Jaguaco et al., 2022). Satisfaction with studies is related to the evaluative judgment of students about the experiences associated with education (Tadesse et al., 2022). However, there are few studies related to satisfaction with the studies (Kim, 2015). In addition, it is one of the indicators associated with educational quality. In this sense, the objective of this research was to determine the degree of influence of family communication and self-esteem on satisfaction with studies in university students from the city of Juliaca. It is important to highlight that in the academic field there are variables that can infer satisfaction with studies, such as religion, and that there is an important need to analyze the social skills of students (Sánchez-Bolívar et al., 2022).

The findings of this research show that family communication and self-esteem are predictors of satisfaction with studies in university students in the city of Juliaca. This means that the family environment, as well as an adequate level of self-esteem, are important for students because it allows them to feel more satisfied. An investigation of 1,212 students showed that the family environment is a predictor of student satisfaction, which means that to be more likely to be satisfied, a good level of family communication is necessary (Lagarda Lagarda et al., 2022). In addition to this, several studies show that family aspects have a strong relationship with the well-being of students (Lyons et al., 2016). Likewise, being able to connect with family members allows students to better cope with academic life (Ali et al., 2022). On the other hand, family communication acts as a control for students, which allows them to achieve



optimal levels of academic satisfaction (León-Moreno & Musitu-Ferrer, 2019). Recent research on 111 university students, unlike our study, reported that family support is not always related to academic satisfaction (Truong & Miller, 2018), however, this study took place in a context of Asian students, which could establish some other cultural patterns that do not resemble the study.

Students with greater family satisfaction tend to have better satisfaction with their studies (Carranza Esteban, Mamani-Benito, Castillo-Blanco, et al., 2022). On the other hand, Koçak et al.(2021) confirmed that family influence significantly affects personal and professional improvement. This means that family influence, whether through family communication or an optimal level of self-esteem, results in the academic aspect, since the family participates as a protective nucleus, providing both psychological and financial support, helping students in difficult times. of their career, which is reflected in different studies (Edwards & Lopez, 2006; Ojeda et al., 2011; Weaver, 2003). In addition, reports show that family dysfunction affects student performance, increasing the proportion of students who must be failed in times of pandemic (Bravo Salinas et al., 2021). Another study in 312 Brazilian university students reported a relationship between family communication with academic satisfaction and life satisfaction, which means that family influence predicts the academic satisfaction of university students (Vautero et al., 2021).

This research shows the importance of the self-esteem variable as a predictor of satisfaction with studies, especially positive self-esteem. Studies show how self-esteem has a function that buffers anxiety (Pyszczynski et al., 2004), which negatively affects the academic performance and mental health of students (Brook & Willoughby, 2015); and that students with positive self-esteem rate themselves positively, which shows them to be more confident in social situations and improves their general satisfaction (Lin & Fan, 2023). Recent research shows low self-esteem as a factor that predicts student dropout (Lorenzo-Quiles et al., 2023). Another study also reports that self-esteem maintains a direct relationship with satisfaction with studies (Carranza Esteban, Mamani-Benito, Castillo-Blanco, et al., 2022; Carranza Esteban, Mamani-Benito, Morales-García, et al., 2022).

Self-esteem is considered a key factor in satisfaction with studies, due to its influence on the perception of students' abilities and personal worth, which affects motivation and academic commitment (Doménech-Betoret et al., 2017). Another study considered self-esteem related to a better adaptation to university life, reducing dropout rates and improving academic commitment (Acosta-Gonzaga, 2023). Unlike academic self-esteem, self-esteem refers to the positive or negative perception of a student's personal worth, which affects the student's ability to complete or not complete educational tasks (Rosenberg, 1965). As a psychological structure, self-esteem can serve as a motivator for academic engagement (Lim & Lee, 2017). Academic self-esteem, on the other hand, is directly related to the assessment that an individual makes of his or her abilities in the academic field (Brown, 1994; Marsh, 1990). Self-esteem is important for satisfaction with studies because it positively affects motivation, stress management, interpersonal relationships, and general well-being (Deci & Ryan, 2000; Leary & Baumeister, 2000).

According to self-determination theory (Deci & Ryan, 1985), found that the education given in the family manifested in good self-esteem and good family communication, resulting in

better control on the part of the students, which ultimately resulted in high satisfaction with their studies, also, under the cognitive theory (Lent et al., 2007) which means that the family is the first filter of support for the students (Guan et al., 2016) and under this model, it can be applied to the academic domain of life since students need the resources of the environment, especially family members, to achieve their educational goals (Lent et al., 2005; Lent & Brown, 2006).

The practical implications of this research are developing intervention programs for parents in which they are helped to improve the levels of family communication and programs that raise the levels of family self-concept. Likewise, programs are needed to help improve students' positive self-esteem to improve their satisfaction with their studies. On the other hand, institutions and teachers should consider families within the academic process to achieve better life satisfaction on the part of students. Finally, applied questionnaires can help teachers analyze family communication constructs, self-esteem, and study satisfaction.

This research is not without some limitations. First of all, although the sample is large, 823 students were only considered from one Peruvian geographical region, so it is necessary to develop similar studies in other regions to generalize the results found in this research. Likewise, the study was developed through self-reporting, so some participating individuals likely had a particular motivation when answering the questionnaire. Also, a methodological aspect of limitation was the use of parceling of the items for the specification of the model, which, although it allows a simplification of the model, the results could be implicated if the dimensionality of the scale were unclear.

On the other hand, due to face-to-face problems, the data was taken virtually, and it is known that there are differences with the face-to-face model, which must be noted.

### **Conclusión**

This study aimed to determine if self-esteem and family communication predict satisfaction with studies in university students from the Puno Region, Peru. Despite these limitations, the findings of this study suggest that self-esteem and family communication are significant predictors of satisfaction with studies in university students from the southern region of Peru. These findings also provide evidence that supports the creation of intervention programs to improve academic satisfaction, considering self-esteem and family communication. We conclude that family communication and self-esteem are predictors of satisfaction with studies in university students from Juliaca.

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