

# Resilience, well-being, and family satisfaction: A protective shield for the mental health of Colombian and Chilean university students

Resiliencia, bienestar y satisfacción familiar: un escudo protector para la salud mental de los estudiantes universitarios colombianos y chilenos

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## SUMMARY

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**Introduction:** *The deterioration of mental health in university students can have important consequences from an academic, relational, and social point of view, so it is important to study family, educational, social, personal, and psychological dimensions that favour psychological well-being, performance, adaptation and permanence in this system, from a*

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preventive approach focused on the resources and protective factors of the mental health and well-being of students. This research aimed to analyze attitudes considered protective of mental health, such as resilience, psychological well-being, and family satisfaction, among university students and users of the psychological care centers within their higher education institutions in Colombia and Chile.

**Materials and methods:** Quantitative descriptive-comparative research was conducted involving 697 students from Colombia and Chile who participated online and completed a demographic characterization form, the Connor-Davidson Resilience Scale, the Ryff Psychological Well-being Scale, and the Olson and Wilson Family Satisfaction Scale. **Results:** The results indicate that the students exhibit a medium to medium-high level in the study variables, with differences observed according to sex and age, particularly with respect to the country, where the Colombian sample is significantly higher. **Conclusion:** The analysis of this type of information is valuable for planning and targeting intervention plans in university psychological care centers.

**Keywords:** Resilience, psychological well-being, family satisfaction, university students, psychological services.

## RESUMEN

**Introducción:** El deterioro de la salud mental en universitarios puede tener importantes consecuencias desde el punto de vista académico, relacional y social, por lo que es importante estudiar dimensiones familiares, educacionales, sociales, personales y psicológicas que favorecen el bienestar psíquico, el rendimiento, la adaptación y la permanencia en este sistema, desde un enfoque preventivo y centrado en los recursos y factores protectores de la salud mental y el bienestar de los estudiantes. El objetivo de la investigación consistió en analizar actitudes consideradas protectoras de la salud mental, como la resiliencia, el bienestar psicológico y la satisfacción familiar, en estudiantes universitarios, usuarios de los centros de atención psicológica de sus instituciones de educación superior de Colombia y Chile. **Materiales y Métodos:** Se realizó una investigación cuantitativa de tipo descriptivo comparativo, en la que participaron 697 estudiantes de Colombia y Chile, quienes respondieron en línea un formulario de caracterización demográfica, la Escala de Resiliencia de Connor-Davidson, la Escala de Bienestar Psicológico de Ryff y la Escala de Satisfacción Familiar de Olson y Wilson. **Resultados:** Los resultados muestran que los estudiantes presentan un nivel medio a medio

alto en las variables de estudio, evidenciándose diferencias según sexo, edad y particularmente con respecto al país, siendo significativamente mayor en la muestra colombiana. **Conclusión:** El análisis de este tipo de información es valioso para la planeación y focalización de los planes de intervención de los centros de atención psicológica universitarios.

**Palabras claves:** Resiliencia, bienestar psicológico, satisfacción familiar, estudiantes universitarios, servicios psicológicos.

## INTRODUCTION

The uncertainty left by the pandemic confinement has strongly impacted the psychological well-being of the population (1-4), especially in vulnerable groups, including women and young people (5). The latter group, composed mainly of students between the ages of 18 and 30, is at high risk of the effects of the health alert (1).

In Latin America, the situation has not been different. The pandemic had negative consequences for the lives of adolescents and young people and their subjective well-being (6-8). The evidence indicates that there is a remarkable impact the pandemic has on university students, detecting that it is a group highly vulnerable to psychic imbalances, depression, and suicide attempts (9-12).

In Chile, several studies have reported on the deterioration of mental health among university students. For example, Barrera-Herrera and San Martín (13) showed that more than 45 % of students had symptoms associated with depression, anxiety, or stress; 5 % had suicidal ideation; about 14 % had problems related to eating disorders; and 50 % had insomnia. Other Chilean post-pandemic research shows that psychological distress ranges from 22.9 % to 40.7 %, and depressive and anxious symptoms reach up to 45 % (14), with a high prevalence of suicide risk (15) and female students being the most affected (14). In Colombia, evidence shows a significant deterioration in mental health, particularly in the psychological well-being of the university population during the pandemic (16). This is confirmed by Restrepo et al. (17), who showed that 47.7 % of their sample

presented symptomatology of depression and 26.1 % anxious symptomatology, being in both cases higher in women than in men. However, despite the worrying mental health situation in the university population, it has been reported that post-pandemic mental health problems, such as anxiety and depression, are comparatively lower in Colombia than in other Latin American countries (18,19). This raises the question, first and foremost, about which psychosocial resources can characterize the quality of mental health in different university populations.

The deterioration of mental health in university students can have important consequences academically (20), psychologically (21,22), occupationally (23,24), relationally (25), and socially (26). The above implies examining the various dimensions that promote psychological well-being, performance, adaptation (27-29), and stability in this system from a preventive approach (30,31) that focuses on resources and protective factors.

Protective resources for mental health can be understood as variables such as resilience (32-34), psychological well-being (35-37), and family satisfaction (38,39), which are relevant to explore in university students from different contexts before planning possible intervention strategies.

Resilience is defined as the capacity to face, overcome, and emerge stronger from unfavourable situations (40). Systematic reviews have demonstrated significant relationships between resilience and mental health (41,42), quality of life (43), and psychological well-being (44). Psychological well-being is understood as a state of balance between our psychic resources and environmental demands, enabling self-realization (45, 46). Several studies have demonstrated a significant relationship between this variable and mental health (35,36) and family satisfaction perceived by individuals (47-49). Family satisfaction is closely related to achieving the goals defined within the family, which is the consequence of the combination of its psychosocial resources, such as cohesion and flexible communication (50). All of the above reinforce the idea that these variables can be approached as qualities of individuals

and their contexts that favour and protect their mental health.

The present research aims to analyze resilience, psychological well-being, and family satisfaction in a sample of Colombian and Chilean students, both at a general level and about specific demographic variables, including gender, age, day of study, and nationality. The sample corresponds to students who have been users of university psychological care centers, which is relevant not only because this is a population with a higher risk of vulnerability in terms of mental health, but also because there are no studies with students from Latin America that focus on these variables in this particular population. Finally, given the protective character of these constructs for mental health, this research may be useful in informing the planning, development, and evaluation of interventions for promoting, preventing, and supporting well-being and mental health in institutions of higher education, which take into account these variables as antecedents.

## MATERIALS AND METHODS

The study design was conducted as quantitative research of a descriptive and comparative nature. It employed a non-experimental, cross-sectional study, as information was collected on the study variables in each situation and at a single point in time within a specific university population. The central variables of the study were Psychological Well-Being, Family Satisfaction, and Resilience. Additionally, a set of demographic variables was measured.

The unit of analysis corresponds to university students who have attended a university psychological care center in Chile or Colombia. The population consists of students from Universidad Bernardo O'Higgins (Chile), Universidad de la Costa, Fundación Universitaria del Área Andina, Universidad Popular del Cesar, and Universidad Simón Bolívar, all located in Colombia. The sample consisted of 697 cases, 123 from Chile and 574 from Colombia. The sampling was non-probabilistic, conducted by chance or convenience, as the information was collected from an online form available from

October 2 to December 6, 2023, to all students belonging to the defined population who wished to participate.

The instruments used to collect the information included a brief demographic data form (which asked for the participant's sex, age, study day, and country), the Ryff Psychological Well-Being Scale, the Olson and Wilson Family Satisfaction Scale, and the Connor-Davidson Resilience Scale (CD-RISC).

**Ryff's Psychological Well-Being Scale.** This Likert-type scale retains the multidimensional structure of the Ryff and Keyes (46) model. The original scale consists of 39 items, each with six response categories, ranging from "strongly disagree" (coded 1) to "strongly agree" (coded 6). The higher the average scores, both in the subscales and in the total scale, the higher the level of psychological well-being. The scale consists of six components or subscales: Self-Acceptance, Positive Relationships, Autonomy, Mastery of the Environment, Personal Growth, and Purpose in Life. The instrument version used was the one validated in Chile by Veliz-Burgos (51) for university students, consisting of 37 items divided into the aforementioned subscales. In the Véliz-Burgos validation, items 10 and 34 were eliminated because they did not correlate significantly with any subscale and because they negatively affected the reliability of the instrument's application. In the same study, the reliability analysis yielded Cronbach's Alpha values above 0.68 in all subscales and the total scale. The reliability analysis yielded an  $\alpha$  of 0.93 on the total scale in the present investigation.

**Olson and Wilson's Family Satisfaction Scale.** It is a Likert-type scale composed of 14 items. The scale is based on Olson's model, which was created by Olson and Wilson in 1982 (50). The items are distributed across two dimensions or subscales: Cohesion and Adaptability. The odd-numbered items measure the Cohesion dimension, while the even-numbered items assess the Adaptability dimension. Each item is answered using an ordinal scale of five grades, which are scored from 1 to 5 and range from

"Totally dissatisfied" to "Totally satisfied." To interpret the results, the scores of each subscale and the total scale should be averaged, where the higher the average, the higher the perceived satisfaction. In a validation study of Peruvian university students, the reliability values were  $\alpha = 0.89$  for the total scale,  $\alpha = 0.84$  for the Cohesion subscale, and  $\alpha = 0.78$  for the Adaptability subscale (52). In the present investigation, the total scale achieved a reliability of  $\alpha = 0.94$ .

**Connor-Davidson Resilience Scale (CD-RISC).** It is a Likert-type scale with 25 items and 5 response alternatives, ranging from "completely disagree" to "completely agree." These alternatives are scored on a scale of 0 to 4. The scale comprises five dimensions or subscales: Personal Competence, Tolerance of Negative Affect, Positive Acceptance of Change, Control, and Spiritual Influences. To interpret the results, averages of the scales and subscales are calculated. The higher the average, the higher the subjects' resilience level. In the original version of the instrument, the scale achieved a reliability of  $\alpha = 0.93$  (53). In two validation studies conducted in Chile and Colombia, reliability results with  $\alpha$  values greater than 0.79 were obtained (54, 55). In this study, the total scale achieved a reliability of  $\alpha = 0.94$ .

## Procedure

To access the participants, each research team from the different universities was authorized to obtain a database containing the institutional e-mail addresses of students who had attended the psychological care center at their university. An online form containing all the previously indicated measurement instruments was shared with all the research teams. This form had a first section with informed consent, which could be accepted or rejected by each potential participant. Subsequently, a mass mailing was sent to the students of the aforementioned databases, inviting them to participate in the research and including a link to the form with the instruments. The electronic form was kept online from October 2 to December 6, 2023. The University's Ethics Committee approved the entire process.

### Data analysis

The original database was obtained in an Excel file downloaded from the online form platform shared with the students. This database was exported to IBM SPSS v.17, which was used for data cleaning and analysis. Having already tabulated the data, the reliability analysis of each scale and subscale was performed first. This analysis was then used to calculate the average score obtained in each subscale and the total scale of each instrument, as these averages form the basis for all subsequent analyses. The demographic variables “country,” “gender,” and “working day” were analyzed with frequencies. The age variable was analyzed using descriptive statistics to describe its distribution. Additionally, age was classified into intervals to facilitate subsequent analysis of the main study variables according to this variable. The main variables of the study were analyzed by calculating descriptive statistics, including mean, standard deviation, and quartiles, for the total instrument and each of its dimensions. To conclude, the same analysis of descriptive statistics was carried out for each of the central variables of the study, using each of the demographic variables as a basis. To evaluate the existence of significant differences in the means of the main variables of the study between the different categories of the socio-demographic variables analyzed, Student’s *t*-tests (for demographic variables with two categories: day and country) and one way ANOVA tests (for demographic variables with more than two categories: grouped age and gender) were performed.

### Ethical aspects

Ethical considerations were taken into account when collecting information in accordance with Resolution 8430 of 1993 of the Ministry of Health and Law 1090 of 2006, which regulates the practice of Psychology in Colombia. That is, ethical aspects were considered to ensure voluntary participation and the confidentiality of the information.

## RESULTS

First, the sociodemographic characteristics of the sample are presented. Subsequently, the study’s main variables—psychological well-being, family satisfaction, and resilience—are analyzed for the total sample. Finally, these variables are analyzed according to each of the sample’s sociodemographic characteristics.

The study sample consisted of  $n=697$  students. Table 1 shows that 17.6 % of the participants belonged to Chilean universities, and 82.4 % belonged to Colombian universities. Of the participants, 73.4 % were women, 25.7 % were men, and 6 people (0.9 %) identified themselves as “non-binary.” The average age of the participants was  $21.63 \pm 4.43$  years, with a range of 18 to 61 years. Finally, regarding the academic day, 89.9 % of students attended daytime courses, while the remaining 10.2 % attended afternoon or evening courses.

Table 1. Sociodemographic characteristics of the sample

Variables		f	%
Country	Chile	123	17.6
	Colombia	574	82.4
Genre	Man	179	25.7
	Woman	512	73.4
	Non-binary	6	0.9
Journey	Diurnal	626	89.8
	Evening/Night	71	10.2
Age	Mean (SD)	Median (RI)	Min-Max
	21.63 (4.43)	21.00 (3.00)	18-61

Note: f = Frequency; % = Percentage; SD = Standard deviation; IR = Interquartile range; Min = Minimum; Max = Maximum.

Table 2 presents the descriptive statistics for each of the study’s main variables. In the case of psychological well-being, it is essential to note that the scores for each dimension and the total variable range from 1 to 6, with higher means

indicating greater adequacy and lower means indicating lesser adequacy. Thus, the mean of psychological well-being is  $4.26 (\pm 0.82)$ , with the least developed dimensions being autonomy ( $3.89 \pm 0.95$ ) and positive relationships ( $4.02 \pm 1.04$ ), while the most developed are personal growth ( $4.82 \pm 0.97$ ) and purpose in life ( $4.46 \pm 1.15$ ). This is consistent with the analysis of the quartiles, which show that as early as Q1, there are adequate values of psychological well-being, both at the general level and in most dimensions, except for autonomy and positive relationships, which have Q1 values lower than the theoretical mean of the scale.

Regarding family satisfaction, the scores on the scale range from 1 to 5, with the interpretation that the lower the mean, the lower the satisfaction, and the closer to 5, the higher the family satisfaction of the subjects. Thus, it can be understood that, in general terms, the family satisfaction perceived by the participants is medium to high ( $3.50 \pm 1.00$ ), with its constituents— family cohesion and family adaptability —having similar levels of

satisfaction. However, it should be noted that the quartile analysis indicates that Q1 is relatively below the theoretical mean of the scale (3.0), implying that at least 25 % of the participants perceive low family satisfaction.

Finally, in relation to resilience, the scale yields scores ranging from 0 to 4, with those close to 5 being interpreted as more resilient and those closer to 0 as less resilient. In this way, the levels of resilience reported by the participants can be interpreted as medium to medium-high, given a mean of  $2.93 (\pm 0.69)$ . The subscales with the highest scores were spiritual influences ( $3.20 \pm 0.91$ ) and positive acceptance of change ( $3.11 \pm 0.74$ ), while those with the lowest averages were tolerance of negative affect ( $2.62 \pm 0.74$ ) and control ( $2.87 \pm 0.91$ ). The above is reinforced by the analysis of the quartiles, which show that as early as Q1 the participants have resilience values above the theoretical mean of the scale (2.0), with tolerance to negative affect being the only dimension with values relatively lower than the rest.

Table 2. Descriptives Psychological Well-Being, Family Satisfaction and Resilience

	N	Mean	Standard Deviation	Q1	Q2	Q3
Self-acceptance	697	4.188	1.1016	3.500	4.333	5.167
Positive Relationships	697	4.022	1.0407	3.333	4.000	4.833
Autonomy	697	3.887	0.9546	3.286	4.000	4.571
Mastering the Environment	697	4.264	0.9300	3.667	4.333	5.000
Personal Growth	697	4.824	0.9785	4.167	5.000	5.667
Purpose in Life	697	4.464	1.1561	3.667	4.667	5.500
Psychological Well-Being	697	4.264	0.8259	3.662	4.270	4.946
Family Cohesion	697	3.602	0.9810	2.857	3.714	4.429
Family Adaptability	697	3.406	1.0657	2.714	3.429	4.286
Family Satisfaction	697	3.504	1.0034	2.786	3.643	4.357
Personal Competence	697	3.046	0.8038	2.500	3.125	3.750
Negative Effect Tolerance	697	2.619	0.7456	2.143	2.571	3.143
Positive Acceptance of Change	697	3.110	0.7444	2.600	3.200	3.800
Control	697	2.867	0.9153	2.333	3.000	3.667
Spiritual Influences	697	3.198	0.9169	2.500	3.500	4.000
Resilience	697	2.930	0.6990	2.480	3.000	3.480

Table 3 presents the analysis of the study variables by age. This analysis categorized age into four intervals: 20 years or less, 21 to 25 years, 26 to 30 years, and 31 years or more.

Psychological well-being was found to be significantly higher in participants aged 26 years or older. Indeed, participants between 26 and 30 years of age had a mean score of  $4.59 (\pm 0.68)$ ,

while those aged 31 years or older also had a mean score of 4.59 ( $\pm 0.97$ ). This behavior is replicated in the dimensions of self-acceptance, positive relationships, and autonomy. This is also reflected in the position of the quartiles, where, for example, in the total variable, subjects over 26 years of age obtain a Q2 (4.70 and 4.78, respectively) that is significantly higher than that of those under 26 years of age. Family satisfaction turns out to be significantly higher in subjects aged 31 years or older ( $3.99 \pm 0.90$ ), while students between 21 and 25 years old obtained the lowest mean ( $3.40 \pm 0.99$ ). The above is consistent in the location of the quartiles, where the Q1 (3.67) of participants aged 31 years or older is approximately one point higher than that of the others. The distribution of family satisfaction means is equivalent in the two components that constitute this variable, with significantly

higher values in subjects aged 31 years or more compared to the rest of the participants. Finally, in the case of resilience, it is also only relatively higher in subjects aged 26 years or older, with participants aged 26 to 30 years having a mean of 3.23 ( $\pm 0.52$ ) and those aged 31 years or older an average of 3.07 ( $\pm 0.73$ ). However, unlike the psychological well-being variable, where this result was similar in all its dimensions, in the case of resilience, this does not occur in all its components since in the spiritual influences dimension, the highest means occur in students aged 20 years or younger ( $3.22 \pm 0.91$ ) and in those aged 26 to 30 years ( $3.43 \pm 0.86$ ). Although there are differences in the results of the variables according to age, they only become significant in the dimension of tolerance to negative affect, where subjects between 26 and 30 years of age obtain a significantly higher score.

Table 3<sup>1</sup>. Descriptives of Psychological Well-Being, Family Satisfaction and Resilience according to age

		N	Mean	Standard Deviation	Q1	Q2	Q3
Psychological Well-Being*	<=20	327	4.290	0.8063	3.757	4.324	4.973
	21 - 25	311	4.176	0.8222	3.568	4.081	4.811
	26 - 30	22	4.586	0.6866	3.851	4.703	5.047
	31+	37	4.593	0.9785	4.014	4.784	5.392
Family Satisfaction*	<=20	327	3.543	1.0040	2.786	3.643	4.357
	21 - 25	311	3.404	0.9964	2.643	3.357	4.286
	26 - 30	22	3.516	1.0320	2.643	3.750	4.268
	31+	37	3.994	0.9051	3.679	4.214	4.679
Resilience	<=20	327	2.946	0.7269	2.480	3.040	3.520
	21 - 25	311	2.875	0.6695	2.440	2.960	3.400
	26 - 30	22	3.231	0.5253	2.830	3.280	3.620
	31+	37	3.071	0.7329	2.760	3.240	3.640

\* Significant differences in means between groups ( $p < 0.01$ ) according to one-factor ANOVA test.

<sup>1</sup>Due to their great extension, it was decided to present in Tables 3 to 6 only the global results of each variable, not by dimension. However, in the analysis of each one of them, we highlight the results of the sub-scales that allow us to have a deeper vision of them.

Table 4 presents the statistics of the study variables segregated by gender. Although the people declared as “non-binary” represent a very small fraction of the sample, we believe that it is important for them to be part of the analysis since they can at least provide a notion, even if

not precise and reliable, of the behavior of the variables of this research in this subpopulation. For this reason, we also recognize that caution should be exercised when interpreting the results obtained from this subgroup.

Regarding psychological well-being, the female sample obtained the highest mean ( $4.29 \pm 0.81$ ), while the non-binary sample obtained the lowest ( $4.18 \pm 0.55$ ). Observing the dimensions of this variable, it can be seen that the female sample obtained the highest averages in self-acceptance ( $4.19 \pm 1.09$ ), positive relationships ( $4.06 \pm 1.03$ ), mastery of the environment ( $4.29 \pm 0.93$ ), and purpose in life ( $4.50 \pm 1.13$ ). It is also noteworthy that non-binary individuals obtained higher averages in autonomy ( $4.00 \pm 0.81$ ) and personal growth ( $5.14 \pm 0.81$ ). Notably, this is the only dimension of the variable where significant differences between genders are observed, with male participants scoring significantly lower. In the case of family satisfaction, male participants obtained the highest average and the lowest standard deviation ( $3.67 \pm 0.95$ ). In both components of this variable, male participants also obtained the highest averages. It can also be observed that in the variable and its dimensions, there are differences between non-binary people, yielding significantly lower values in each of them compared to the other genders. This is

also reflected in the values of Q1 (1.76) and Q2 (3.07) obtained by the aforementioned group. Finally, in relation to resilience, it is observed that individuals of the male gender obtain a higher mean ( $2.97 \pm 0.77$ ), with the difference between the other genders not being significant. Analyzing the constituents of this variable reveals that female participants achieve the highest averages in personal competence ( $3.06 \pm 0.77$ ), control ( $2.87 \pm 0.90$ ), and spiritual influences ( $3.26 \pm 0.86$ ). In this dimension, it also stands out that non-binary persons obtain a mean value significantly lower than that of the other genders ( $2.17 \pm 0.060$ ). The above is consistent with the location of the quartiles in the case of non-binary individuals, where each of them is more than one point below the values of the other genders. On the other hand, male students obtain the highest averages in positive acceptance of change ( $3.17 \pm 0.83$ ) and tolerance of negative affect ( $2.78 \pm 0.78$ ), followed closely by non-binary people ( $2.74 \pm 0.62$ ). In this last dimension, the difference also turns out to be significant in relation to the female gender.

Table 4. Descriptives of Psychological Well-Being, Family Satisfaction and Resilience according to gender

		N	Mean Deviation	Standard	Q1	Q2	Q3
Psychological Well-Being	Male	179	4.204	0.8647	3.649	4.243	4.811
	Female	512	4.286	0.8148	3.703	4.284	4.973
	Non-binary	6	4.176	0.5541	3.736	4.095	4.791
Family Satisfaction*	Male	179	3.670	0.9560	3.000	3.786	4.500
	Female	512	3.453	1.0120	2.714	3.500	4.286
	Non-binary	6	2.940	1.1486	1.768	3.071	3.571
Resilience	Male	179	2.971	0.7744	2.520	3.040	3.560
	Female	512	2.918	0.6725	2.480	3.000	3.440
	Non-binary	6	2.740	0.5773	2.380	2.800	3.230

\* Significant differences in means between groups ( $p < 0.05$ ) according to one-factor ANOVA test.

Table 5 shows the variables according to the students' study days. Regarding psychological well-being in general, students in the afternoon schedule had a relatively higher average ( $4.34 \pm 0.85$ ) than those in the daytime ( $4.26 \pm 0.82$ ), with very similar standard deviations between the two groups. This difference is equivalent in

practically all dimensions, with the exception of the purpose in life sub-scale, where daytime students have a slightly higher mean ( $4.47 \pm 1.15$ ) than evening students ( $4.43 \pm 1.15$ ). In relation to family satisfaction, the evening participants ( $3.59 \pm 1.07$ ) also have higher means than the daytime participants ( $3.50 \pm 0.99$ ). This difference

also occurs in the two components that constitute this variable. Finally, with respect to resilience, daytime students ( $2.94 \pm 0.69$ ) have a relatively higher mean with a lower standard deviation than evening students ( $2.87 \pm 0.74$ ). Daytime students also have a relatively higher average in

each of the sub-scales that constitute resilience. Although there are differences between the two subsamples, none of the variables compared are significant. In both, the levels of the variables are at a medium to medium-high level.

Table 5. Descriptives of Psychological Well-being, Family Satisfaction, and Resilience by Day.

		N	Mean	Standard Deviation	Q1	Q2	Q3
Psychological Well-Being	Daytime	626	4.256	0.8232	3.649	4.270	4.946
	Evening/Nighttime	71	4.340	0.8519	3.703	4.243	4.973
Family Satisfaction	Daytime	626	3.495	0.9950	2.786	3.571	4.286
	Evening/Nighttime	71	3.591	1.0787	2.643	3.857	4.429
Resilience	Daytime	626	2.936	0.6945	2.480	3.000	3.480
	Evening/Nighttime	71	2.873	0.7403	2.480	2.920	3.480

Table 6 and Table 6.1 present the results of the research variables in relation to the country of origin of the university students. This analysis highlights the fact that in all the variables and their components (with one exception) Colombian students obtain significantly higher averages than Chilean students. Regarding psychological well-being, Colombian students obtained an average of  $4.33 (\pm 0.81)$  versus  $3.94 (\pm 0.78)$  for Chilean students, with the only dimension showing no significant difference being personal growth. The values of the quartiles compared for both groups also show this difference, with Q1 (3.37) for Chilean students being closer to the lower values than in the Colombian case. For their part, Colombian participants report an average family satisfaction of  $3.6 (\pm 0.97)$ , compared to Chilean students at  $2.99 (\pm 0.99)$ . Concerning this variable, the position of the quartiles also reflects a considerable difference between participants from both countries. For example, the Q2 of the Chilean sample is closer to the lower score, whereas the Colombian sample is closer to the upper values. Likewise, in terms of resilience, the Colombian students showed a mean of  $3.00 (\pm 0.68)$ , which is significantly higher than that obtained by the Chilean students ( $2.58 \pm 0.66$ ). These differences are replicated in each of the dimensions of this variable and are consistent

with the differences evidenced in the position of the quartiles.

## DISCUSSION

In general, participants show a medium to medium-high level in terms of the main variables. However, a significantly higher level of them is observed in the Colombian sample. This suggests that cultural issues may influence these protective variables of mental health to a greater extent than other demographic characteristics. We first refer to the results for each construct and then discuss them in relation to age, gender, and country, with emphasis on the intervention possibilities they offer. Finally, we discuss the study's limitations and its main contributions and provide suggestions for future research.

It can be affirmed that participants have regular to adequate psychological well-being, significantly higher in those aged 26 years or older. The most developed dimensions are personal growth and life purpose, as opposed to autonomy and positive relationships. Regarding the first two dimensions, we can mention that participating institutions are characterized by having a high population of first-generation

Table 6. Descriptives of Psychological Well-Being, Family Satisfaction and Resilience according to country

		<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>
Psychological Well-Being*	Chile	123	3.942	0.7825	3.378	3.919	4.568
	Colombia	574	4.333	0.8193	3.730	4.338	5.027
Family Satisfaction*	Chile	123	2.985	0.9950	2.214	2.929	3.857
	Colombia	574	3.615	0.9706	2.929	3.714	4.429
Resilience*	Chile	123	2.583	0.6664	2.080	2.640	3.040
	Colombia	574	3.004	0.6838	2.600	3.080	3.560

\* Significant differences in means ( $p < 0.01$ ) between groups according to Student's t-test.

Table 6.1. Descriptives of Psychological Well-being. Family Satisfaction and Resilience according to Country

		<b>N</b>	<b>Media</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
Self-acceptance	Chile	123	3.816	1.0989	1.0	6.0
	Colombia	574	4.268	1.0866	1.0	6.0
Positive Relationships	Chile	123	3.734	1.0839	1.0	6.0
	Colombia	574	4.084	1.0217	1.0	6.0
Autonomy	Chile	123	3.605	0.9578	1.4	5.6
	Colombia	574	3.948	0.9438	1.3	6.0
Mastery of the Environment	Chile	123	3.863	0.8477	1.8	6.0
	Colombia	574	4.350	0.9251	1.3	6.0
Personal Growth	Chile	123	4.676	0.9022	2.0	6.0
	Colombia	574	4.855	0.9920	1.0	6.0
Purpose in Life	Chile	123	4.016	1.1518	1.2	6.0
	Colombia	574	4.560	1.1353	1.0	6.0
Psychological Well-being	Chile	123	3.942	0.7825	1.9	5.4
	Colombia	574	4.333	0.8193	1.4	6.0
Family Cohesion	Chile	123	3.120	0.9767	1.0	5.0
	Colombia	574	3.706	0.9513	1.0	5.0
Family Adaptability	Chile	123	2.851	1.0650	1.0	5.0
	Colombia	574	3.525	1.0284	1.0	5.0
Family Satisfaction	Chile	123	2.985	0.9950	1.0	5.0
	Colombia	574	3.615	0.9706	1.1	5.0
Personal Competence	Chile	123	2.611	0.8188	0.4	4.0
	Colombia	574	3.139	0.7699	0.0	4.0
Tolerance of Negative Affect	Chile	123	2.403	0.7231	0.4	4.0
	Colombia	574	2.666	0.7428	0.0	4.0
Positive Acceptance of Change	Chile	123	2.774	0.7474	0.4	4.0
	Colombia	574	3.183	0.7243	0.4	4.0
Control	Chile	123	2.534	0.8382	0.0	4.0
	Colombia	574	2.938	0.9160	0.0	4.0
Spiritual Influences	Chile	123	2.699	0.9746	0.0	4.0
	Colombia	574	3.305	0.8684	0.0	4.0
Resilience	Chile	123	2.583	0.6664	0.6	4.0
	Colombia	574	3.004	0.6838	0.5	4.0

students, which allows us to hypothesize that they have a growth and life purpose strongly rooted in access to higher education and in having a career as a dream or life project, which gives them a sense and hope of social mobility. The lower result in the dimensions of autonomy and positive relationships can be linked to the conflict inherent to the stage of psychological development in which most of the participants are, in which is common to observe an ambivalence between desiring greater autonomy, while depending on their families in various ways, especially, in the Latin American context. The results also suggest that there is room for improvement, particularly in terms of autonomy and relationships, which could be achieved by promoting, for example, self-management in students, as well as fostering positive relationships among all the actors that comprise the institutional system.

Then, it is observed that the participants perceive family satisfaction as ranging from regular to high, especially among those 31 years of age or older. The students between 21 and 25 years old obtained the lowest average. It is noteworthy that at least 25 % of the participants hold a perception of low family satisfaction. This leads us to hypothesize that a significant group, especially those who were adolescents during the pandemic, faced several parallel crises during that period, as their autonomy was diminished and, perhaps, they resented the role of the family in this regard. This, in turn, may be related to the fact that students from these universities come from lower-middle-class families, which were strongly affected by the uncertainty generated by the health crisis, for example, regarding economic issues (7, 56).

Third, it is notable that resilience is medium to medium-high, which can be understood as a protective factor for mental health, allowing these students to remain in the system, a result in itself that is encouraging. The fact that they are students who are aware of the need for support and that they ask for it by attending centers that provide it reinforces the idea that resilience alludes to the ability to make concrete actions to address life complexity events, leading to learning (57). It also highlights that resilience levels increase with age, a finding that has already been established in previous research (58). It is relevant to note that the subdimension tolerance to negative

affect shows the lowest result, which could be linked to the unpredictability of the pandemic and the damage it left on the mental health of students (22), as well as to the assumption that participants have experienced shortages and adversities in their life trajectories, often linked to their socioeconomic backgrounds.

In relation to the analysis of these constructs and age, the perception of well-being and family satisfaction is significantly better among older students, who tend to have classes in the evening, which is consistent with the trend observed in resilience. From the above, we can then conclude that interventions in university contexts aimed at enhancing the resilience and well-being of their students should, as proposed by Cuijpers et al. (30) and Eisenberg (31), be early and preventive. An example of the above is resilience tutoring, in which older students serve as companions to first-year students, as proposed by Cyrulnik (32).

Regarding gender and the variables evaluated, it is interesting that the female sample obtained the highest mean in well-being, which differs from what has been observed in previous studies, where male students have been found to have higher well-being, specifically in Colombia (58,59). The lowest mean appears in non-binary people. In terms of family satisfaction, the male participants obtained the highest mean, as was also observed in resilience (60-68). At the same time, non-binary students achieved a mean well below that of the other genders and with lower dispersion. The finding on family satisfaction in men could be related to the gender roles that men and women traditionally have in the family in Latin culture. As for the second, although the sample size of those who identify themselves as non-binary is small in relation to the total, the data tells us that it is necessary to intervene within minority groups, such as sexual minorities, given the lower perception of these protective elements of mental health, an area that tends to appear debilitated in this group.

Lastly, when analyzing the comparison of both countries, the decrease in the Chilean sample in all the variables considered is striking. This result calls, on the one hand, for continued efforts to address the mental health ravages left by the pandemic in Chile and to focus these efforts on the student population in this matter (13).

This is consistent with the research of Huisa et al. (18), who speak of lower mental health damage in other Latin American countries versus Chile. Furthermore, the comparison between countries is of profound interest, as it reveals that, although there are similar aspects between the two, idiosyncratic and cultural aspects must also be considered in the interventions designed and implemented.

One limitation of this study is that the sample was recruited voluntarily; therefore, participants may have had characteristics that led them to participate, which could affect the generalizability of the results. Nevertheless, it provides information on variables that protect mental health in university students who receive care in the psychological care centers of their institutions, on which there was no information in the Latin American context. This is not only novel at the research level but also allows to delineated axes to strengthen interventions that are developed for them, which, according to the results, should be culturally relevant, tailored to specific groups (such as students who identify with sexual minorities), and done early and using the experience of older peers, within an institutional context that promotes autonomy and healthy relationships.

It is essential to continue this line of research, analyzing the results from Chile and Colombia separately and comparing them with those from other countries, with a focus on variables that protect mental health rather than just the harmful effects of the pandemic. Additionally, we should explore well-being from a gender perspective and, from a qualitative paradigm, how young people have overcome adversity to achieve success.

All the aforementioned calls for systemic and institutional interventions focus on promotion and prevention at a fundamental stage of human development, where young people are also part of the system that constitutes their primary means of social mobility.

## CONCLUSIONS

The study's results reveal that university students exhibit moderate to high levels of

psychological well-being, resilience, and family satisfaction, with significant variations observed across age, gender, and cultural contexts. It is highlighted that students over 26 years of age tend to experience greater well-being, which may be related to their progress in the life cycle and their ability to manage challenges better. In contrast, young people between 21 and 25 years of age, who mostly lived through adolescence during the pandemic, show lower levels of family satisfaction and greater emotional dependence, which underlines the need for interventions aimed at improving their autonomy and interpersonal relationships. Women reported better levels of well-being than men and non-binary people, the latter being a group that requires special attention due to their vulnerability in protective aspects of mental health.

Likewise, the comparison between the Chilean and Colombian contexts reveals significant differences, with Colombian students presenting better results in all variables. This finding suggests that cultural and contextual factors may play a key role in shaping students' psychological well-being and resilience. Interventions to improve mental health in university settings should be culturally relevant, focusing on prevention and promoting well-being from an early stage. Additionally, it is recommended to implement strategies such as peer mentoring, where older students can guide and mentor their younger peers, fostering an institutional environment that promotes autonomy and healthy relationships.

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