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Psychological inflexibility and psychological well-being in university students

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Abstract This research aims to study the psychological inflexibility and well-being of university students. Specifically, four key questions were investigated: (1) whether psychological inflexibility has a negative effect on psychological well-being; (2) whether there is a relationship between both variables; (3) whether there are sex differences in psychological inflexibility and well-being; and (4) whether there are differences based on age range. The sample consisted of 752 university students (both male and female) aged between 18 and 32 years, none of whom had been diagnosed with any psychopathology. The study adopts a quantitative approach, using a nonprobabilistic convenience sampling method. The instruments used were the Acceptance and Action Questionnaire (AAQ-II) and the Psychological Well-Being Scale (SPWB), both adapted to the Peruvian context. The results show that psychological inflexibility is a significant predictor of psychological well-being, revealing a negative correlation between the two variables. Significant differences were identified in psychological inflexibility based on sex, with women being more inflexible. Additionally, significant differences were found between the study variables and the participants' age range. The findings emphasize the relevance of psychological inflexibility as a key factor in the psychological well-being of university students, suggesting the need for timely interventions and encouraging further research in this field.

Keywords: psychological rigidity, mental health, emotional regulation, cognitive fusion

1. Introduction

University students face an environment filled with demands that go beyond the academic realm, extending into personal and social areas, such as the process of gaining autonomy, establishing new social relationships, making confident decisions, dealing with uncertainty about their future, and, in some cases, adapting to a new place and culture (Sandoval et al., 2017). This can lead to their psychological well-being being affected, causing difficulties in all the aforementioned areas, as it has been confirmed that optimal emotional balance fosters better social development within the classroom, which also contributes to higher academic performance (Arhuis & Ipanaqué, 2023).

Importantly, psychological well-being is not limited to the absence of illness and can influence both life satisfaction and the presence of psychopathologies (Mamani et al., 2022; Wersebe et al., 2018). On the other hand, there is a close relationship between the dimensions of psychological rigidity and various psychopathologies in clinical populations (Cheng et al., 2021; Ruiz & Odriozola, 2016; Tan et al., 2023). Additionally, high levels of psychological inflexibility in the Peruvian population have been shown to influence the risk of suicide (Salcedo & Quijada, 2024).

The lack of flexibility in young adults is associated with negative thoughts and emotions, meaning that greater rigidity leads to greater emotional difficulties (Westhoff et al., 2024). Psychological inflexibility is characterized by the creation of rigid and restrictive behaviors, with a predominance of social conformity and avoidance, which limits opportunities for progress, resulting in missed opportunities (Hayes et al., 2011).

Psychological inflexibility can represent a significant obstacle to adapting to change, influencing the difficulty in accepting negative emotions and the ability to achieve goals in times of distress (Cobos et al., 2022). Therefore, being psychologically flexible is an important factor in mental health (Arsland, 2024).

In nonclinical populations, significant relationships have also been reported, such as the case of risk factors for mental well-being during the coronavirus crisis, where psychological rigidity intensified its negative effect on mental health (Pakenham et al., 2020).

In Latin America, research on the relationship between psychological inflexibility and well-being remains limited. However, recent studies from Ecuador, Chile, and Colombia have reported similar patterns, highlighting the impact of psychological rigidity on academic well-being and stress in educational contexts marked by high levels of uncertainty (Barbayannis et al., 2022; Beroíza-Valenzuela, 2024; Villarruel Gavilanes & Cueva Rubio, 2023). These findings suggest that

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university students across the region face common mental health challenges, emphasizing the need for further research in diverse cultural and educational settings. They also align with recent Peruvian studies that have shown similar associations between psychological inflexibility and poor mental health outcomes in young populations, underscoring the importance of more regionally comparative research (Salcedo & Quijada, 2024).

Research on psychological well-being and inflexibility is diverse; however, few studies explore the relationship between these two variables, with most focusing on their link to psychopathologies. This has led university students to be excluded as a relevant sample when focusing on clinical samples, resulting in an informational gap. Accordingly, the aim of this study is to analyze the relationship between psychological inflexibility and psychological well-being in Peruvian university students, while also examining possible differences based on sex and age group. Based on this objective, the following hypotheses were formulated: (1) psychological inflexibility has a negative effect on the psychological well-being of university students; (2) there is a significant relationship between psychological inflexibility and psychological well-being in university students; (3) there are significant differences in levels of psychological inflexibility and psychological well-being according to students' sex; and (4) there are significant differences in levels of psychological inflexibility and psychological well-being according to students' age group.

2. Materials and methods

2.1. Participants

For sample collection, a nonprobabilistic convenience sampling method was used, taking into account the accessibility of university students from the different faculties to which they belong. Given the type of sampling used, out of the 12,436 enrolled students (SUNEDU, 2019), the final sample consisted of 752 students, with 59.3% women (446) and 40.7% men (306). Regarding the participants' ages, 41% were in the age range of 22--24 years (308), 37% were 21 years old or younger (284), 15% were between 25 and 27 years old (113), 4.7% were between 28 and 30 years old, and finally, 1.6% were over 30 years old. The participants belonged to the Faculties of Engineering, Humanities, and Administration and Finance, all of whom were enrolled in the face-to-face modality. The inclusion criterion included being an actively enrolled university student. The exclusion criteria were having a diagnosis of any psychopathology, being under psychological therapy, or refusing to provide informed consent. No compensation was provided for participation in the study.

2.2. Instruments

To assess psychological inflexibility, the adapted version of the Acceptance and Action Questionnaire (AAQ-II), originally developed by Hayes et al. (2004) and adapted by Martínez in 2018, was used. This instrument is designed to measure experiential avoidance and psychological inflexibility. Each item is rated on a 7-point Likert scale (where 1 means "completely false" and 7 means "completely true"); higher scores indicate higher levels of psychological inflexibility. The Cronbach's alpha is good ($\alpha = 0.88$). The instrument has SRMR values of 0.03, CFI values of 0.99, RMSEA values of 0.05, and AIC values of 13.22. It is suitable for use with both clinical and nonclinical populations and has been shown to be reliable and valid in university student populations (Guzmán, 2022).

To measure psychological well-being, the version adapted for Peru by Álvarez (2019) of the Psychological Well-Being Scale (SPWB) by Díaz et al. (2006) was administered. This scale retains the six dimensions of psychological well-being proposed by Ryff and consists of 30 items, each rated on a 6-point Likert scale (where 1 represents "strongly disagree" and 6 represents "strongly agree"). Higher scores indicate higher levels of psychological well-being. With respect to the reliability of the scores for each dimension, Cronbach's alpha coefficients of 0.70 or higher were obtained (Álvarez, 2019). However, since the administered version lacked construct validity, factor analysis was conducted to obtain the relevant values for the quality of the instrument. Additionally, internal consistency was measured, and the Psychological Well-Being Scale (SPWB) had a Cronbach's alpha coefficient of 0.912 and a McDonald's omega of 0.924 (Table 1). With respect to validity, Bartlett's test of sphericity indicated a p value < 0.001, suggesting that the data were suitable for factor analysis (Table 2). The overall KMO index was 0.951, with individual MSA values ranging from 0.816 to 0.972 (Table 3). Exploratory factor analysis (EFA) identified two factors that explained 57.4% of the total variance (Table 4). The factor loadings ranged from 0.609 to 0.836, with uniqueness values between 0.262 and 0.614, supporting a strong relationship between the items (Table 5). In the confirmatory factor analysis (CFA), all factor loadings were statistically significant ($p < 0.001$) (Table 6), and the covariance between factors was 0.388, indicating a moderate relationship between them (Table 7). The model fit indices were CFI = 0.971, TLI = 0.966, SRMR = 0.0299, RMSEA = 0.0544, with a 90% confidence interval between 0.0474 and 0.0615 (Table 8), demonstrating the validity of the instrument. The residuals of the observed correlation matrix were less than 0.05, suggesting minimal discrepancies between the items and supporting the validity of the instrument for future research or practical application. The adapted version (Figure 1) consists of 15 items distributed across two dimensions. Dimension 1 includes 11 items (BP_Item5, BP_Item11, BP_Item13, BP_Item15, BP_Item16, BP_Item17, BP_Item20, BP_Item22, BP_Item24, BP_Item25, and BP_Item30), whereas Dimension 2 includes 4 items (BP_Item4, BP_Item9, BP_Item19, and BP_Item27). Three reverse-coded items were retained (BP_Item4, BP_Item9, and BP_Item27).

2.3. Procedures

The responses from the participants were collected in person. A brief explanation of the research was provided to the students, and with the support of each professor and classroom delegates, the questionnaire link was shared through the WhatsApp groups of each class or accessed directly via QR codes placed in visible areas. The Google Forms link contained both the instruments and the informed consent form, which were self-administered in approximately 15–20 minutes. This data collection procedure was carried out from October 2023 to October 2024.

2.4. Ethical Considerations

The Ethics Committee of the Research Department at the Technological University of Peru (Arequipa campus) approved this study on August 22, 2023, under ruling number 129–2023-CEI-UTP. Before accessing the questionnaire, participants were informed about the objectives of the study, the voluntary nature of their participation, and their right to withdraw at any time without consequences (Hallinan et al., 2023; Yusof et al., 2022). Informed consent was obtained through a required checkbox on the digital form. Confidentiality was safeguarded by anonymizing responses and storing the data in password-protected files accessible only to the research team (Audette et al., 2020). Contact information for psychological support services was also provided in case of any emotional discomfort during participation.

2.5. Data Processing

The data analysis was conducted via Jamovi 2.6.17.0, which applies various statistical tests to ensure the validity and reliability of the results. Since the previous adaptation of the Psychological Well-Being Scale (SPWB) in its Peruvian version showed weak quality criteria, a thorough reliability analysis was conducted by calculating Cronbach's alpha and McDonald's omega. For construct validity, both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were performed, and the assumptions were evaluated through the Kaiser–Meyer–Olkin (KMO) test and Bartlett's test of sphericity. The maximum likelihood extraction method with varimax rotation was used to define the factorial structure of the instrument. Additionally, the covariances between the factors were analyzed, and model fit indices such as CFI, TLI, SRMR, and RMSEA were employed to confirm the adequacy of the factorial model. To test the hypotheses, different statistical procedures were applied on the basis of the nature of the variables. For the first two hypotheses, which evaluate the effect and relationship between psychological inflexibility and well-being, simple linear regression was used to obtain the R and R^2 values, complemented by Pearson's correlation (r) to determine the directionality of the relationship, as regression only measures the strength of the association. For the hypothesis comparing sex, an independent samples t test was conducted to analyze the differences in inflexibility and psychological well-being scores between men and women. Finally, for the hypothesis relating the age range to both variables, Pearson and Spearman correlations were calculated, as age did not meet the normality assumptions, whereas the other variables did, allowing for analysis through linear regression. Specifically, Spearman's rho was applied in the correlation between age and the psychological well-being dimensions, as the Shapiro–Wilk test indicated a non-normal distribution for age. This non-parametric approach ensured the robustness of the analysis. In contrast, for the linear regression models involving psychological inflexibility and well-being dimensions, assumptions of linearity, homoscedasticity, and normal distribution of residuals were checked and met, allowing the use of parametric tests with confidence.

To guide the interpretation of the results, Table 9 summarizes the hypotheses tested, the statistical tests applied, and the main findings obtained.

3. Results

Continuing with the first hypothesis, which examines the effect of psychological inflexibility on the psychological well-being of university students, Table 10 shows the R^2 value, where the independent variable explains a moderate proportion of the variance in psychological well-being. A total of 25.3% of the variability in psychological well-being can be explained by the variability in psychological inflexibility. The remaining 74.7% of the variance is due to other factors not included in the model or random error. The F value (254) and $p = 0.001 < \alpha$ (where $\alpha = 0.05$) support the notion that the regression model is significant and explains an important part of the variability in psychological well-being. Additionally, Table 11 specifies that the effect of the independent variable on the dependent variable is statistically significant.

According to the second hypothesis regarding the relationship between psychological inflexibility and psychological well-being in university students, Table 12 shows that the coefficient is negative (r = -0.503), meaning that as the value of the independent variable increases, the expected value of the dependent variable decreases (an inverse relationship). In other words, individuals with greater psychological inflexibility tend to experience lower levels of psychological well-being. Psychological inflexibility may be a factor that limits a person's ability to adapt to new situations and negatively influences their well-being.

Regarding the third hypothesis on gender differences in psychological inflexibility and psychological well-being among university students, Table 13 shows that there are no significant differences in psychological well-being between the groups (t

= -1.72, p = 0.957 > α = 0.05). However, a significant difference was found in psychological inflexibility (t = 4.63ª, p < .001), with female students exhibiting higher levels of inflexibility than their male counterparts.In line with the fourth hypothesis regarding differences in the age range of university students and the study variables, the results in Table 14 show that for psychological inflexibility, with r = -0.180 and p = 0.001 < α (where α = 0.05), there is a significant negative correlation, suggesting that older individuals tend to have lower psychological inflexibility. With respect to psychological well-being, with r = 0.107 and p = 0.001 < α (where α = 0.05), there is a significant positive correlation, although it is weak, indicating that psychological well-being tends to slightly increase with age.

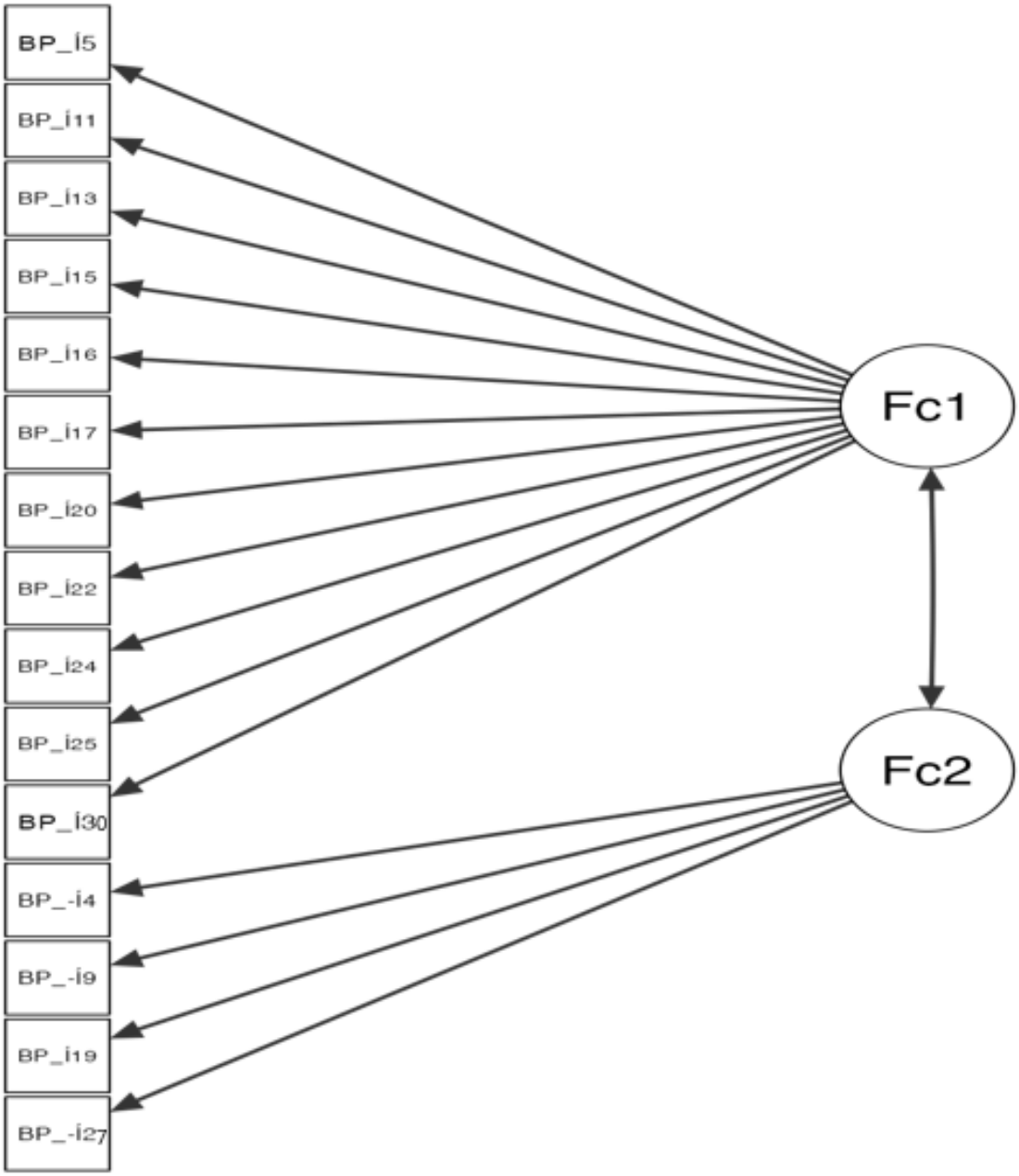

Figure 1 Flowchart of the SPWB. This figure represents the relationship between the items of the instrument and the factors identified through factorial analysis. On the left side, the distribution of the items is shown, which are associated with two latent dimensions (Fc1 and Fc2). The first group of items is linked to Factor 1 (Fc1), while the remaining items form Factor 2 (Fc2).

Table 1 Reliability Statistics of the SPWB Scale.

	Cronbach's Alpha	ω of McDonald
Scale	0.912	0.924

Table 2 Bartlett's Test of Sphericity of the SPWB.

χ^2	gl	p
6851	105	<.001

Table 3 KMO (Kaiser–Meyer–Olkin) Measure of Sampling Adequacy of the SPWB.

	MSA
Global	0.951
BP_Ítem5	0.966
BP_Ítem11	0.969
BP_Ítem13	0.972
BP_Ítem15	0.961
BP_Ítem16	0.964
BP_Ítem17	0.972
BP_Ítem20	0.964
BP_Ítem22	0.948
BP_Ítem24	0.969
BP_Ítem25	0.943
BP_Ítem30	0.969
BP_-Ítem4	0.863
BP_-Ítem9	0.855
BP_Ítem19	0.816
BP_-Ítem27	0.877

Table 4 Factor Statistics of the SPWB Summary.

Factor	SC Loadings	% of Variance	% Accumulated
1	6.55	43.7	43.7
2	2.06	13.7	57.4

Note: % of Total Variance 57.40.

Table 5 Exploratory Factor Analysis of the SPWB Factor Loadings.

	Factor		
	1	2	Uniqueness
BP_Ítem5	0.712		0.480
BP_Ítem11	0.771		0.376
BP_Ítem13	0.754		0.427
BP_Ítem15	0.819		0.309
BP_Ítem16	0.806		0.326
BP_Ítem17	0.774		0.336
BP_Ítem20	0.799		0.314
BP_Ítem22	0.836		0.262
BP_Ítem24	0.627		0.591
BP_Ítem25	0.823		0.320
BP_Ítem30	0.690		0.508
BP_-Ítem4		0.684	0.494
BP_-Ítem9		0.672	0.532
BP_Ítem19		-0.702	0.499
BP_-Ítem27		0.609	0.614

Note: The extraction method 'Maximum Likelihood' was used in combination with a 'Varimax' rotation.

Table 6 Confirmatory Factor Analysis of the SPWB Factor Loadings.

Factor	Indicator	Estimator	EE	Z	p
Factor 1	BP_Ítem5	1.035	0.0459	22.6	<.001
	BP_Ítem11	1.146	0.0447	25.7	<.001
	BP_Ítem13	1.029	0.0431	23.9	<.001
	BP_Ítem15	1.147	0.0414	27.7	<.001
	BP_Ítem16	1.157	0.0424	27.3	<.001
	BP_Ítem17	1.146	0.0430	26.7	<.001
	BP_Ítem20	1.186	0.0430	27.6	<.001
	BP_Ítem22	1.241	0.0424	29.3	<.001
	BP_Ítem24	0.938	0.0487	19.2	<.001
	BP_Ítem25	1.069	0.0398	26.9	<.001
	BP_Ítem30	1.076	0.0496	21.7	<.001
Factor 2	BP_-Ítem4	1.133	0.0575	19.7	<.001
	BP_-Ítem9	1.122	0.0606	18.5	<.001
	BP_Ítem19	-1.195	0.0626	-19.1	<.001
	BP_-Ítem27	1.172	0.0687	17.1	<.001

Table 7 Covariances of the SPWB Factors.

		Estimator	EE	Z	p
Factor 1	Factor 1	1.000[a]			
	Factor 2	0.388	0.0372	10.4	<.001
Factor 2	Factor 2	1.000[a]			

Note: [a]fixed parameter.

Table 8 Fit Indices of the SPWB.

				90% Confidence Interval (CI) of the RMSEA	
CFI	TLI	SRMR	RMSEA	Lower	Upper
0.971	0.966	0.0299	0.0544	0.0474	0.0615

Table 9 Summary of research hypotheses, statistical tests, and main results.

Hypothesis	Statistical Test	Result
H1: Psychological inflexibility negatively affects psychological well-being	Simple linear regression	Significant negative effect (β = –0.52, p < .001)
H2: There is a significant relationship between psychological inflexibility and psychological well-being	Pearson correlation (r)	Significant inverse correlation (r = –.48, p < .001)
H3: Differences in inflexibility and well-being by sex	Independent samples t test	Significant difference in well-being (p = .032); no difference in inflexibility
H4: Differences in inflexibility and well-being by age group	Spearman correlation	No significant differences (p > .05)

Table 10 Fit Indices of the Explanatory Model of Psychological Well-being and Psychological Inflexibility.

			Global Test of the Model			
Model	R	R^2	F	gl1	gl2	p
1	0.503	0.253	254	1	750	<.001

Note: Models estimated using sample size of N=752.

Table 11 Coefficients of the Explanatory Model of Psychological Well-being and Psychological Inflexibility.

Predictor	Estimator	EE	t	p	Standard Estimador
Constant	79.674	0.8867	89.9	<.001	
Psychological inflexibility	-0.709	0.0445	-15.9	<.001	-0.503

Table 12 Correlation of Psychological Well-being and Psychological Inflexibility

		Psychological well-being
Psychological inflexibility	Pearson's R	-0.503***
	gl	750
	P - Value	<.001
	N	752

Note: * p < .05, ** p < .01, *** p < .001.

Table 13 Comparison of Psychological Well-being and Psychological Inflexibility by Gender.

		Statistic	gl	p
Psychological inflexibility	Student's t test	4.63[a]	750	<.001
	Mann–Whitney U test	53742		<.001
Psychological well-being	Student's t test	-1.72	750	0.957
	Mann–Whitney U test	61219		0.992

Note: H_a μFemale > μMale. [a] The significant Levene's test (p < 0.05) suggests that the variances are not equal.

Table 14 Correlation between Psychological Well-Being, Psychological Inflexibility and age.

		Age_range
Psychological inflexibility	Pearson's R	-0.180***
	gl	750
	P Value	<.001
	Spearman's Rho	-0.227***
	gl	750
	valor p	<.001
Psychological well-being	Pearson's R	0.107**
	gl	750
	P Value	0.003
	Spearman's Rho	0.155***
	gl	750
	P Value	<.001

Note: * p < .05, ** p < .01, *** p < .001.

4. Discussion

Although psychological inflexibility is often studied in clinical populations, its study in nonclinical populations, such as university students, is also relevant. University students frequently face high levels of academic stress, social pressure, and personal challenges (Beiter et al., 2015), making them particularly vulnerable. Therefore, understanding how psychological inflexibility influences their well-being is crucial not only to help identify risk factors for their mental health but also to provide timely tools and interventions that contribute to better performance and a healthier transition to adulthood. Moreover, individuals with psychological flexibility exhibit higher levels of psychological well-being, whereas those with greater psychological inflexibility are more likely to experience poorer mental health and develop psychopathologies (Pakenham et al., 2020). Additionally, in nonclinical populations, one of the components of psychological inflexibility, cognitive fusion, is related to difficulties in reevaluating situations positively (cognitive reappraisal) and a greater tendency to suppress emotions, which over time suggests lower life satisfaction (Faustino et al., 2021; Faustino, 2020; Valdivia-Salas et al., 2022).

The purpose of this study was to investigate psychological inflexibility and psychological well-being in university students, focusing on four main hypotheses: (1) There is a negative effect of psychological inflexibility on the psychological well-being of university students; (2) there is a relationship between psychological inflexibility and psychological well-being in university students; (3) there are differences based on sex inpsychological inflexibility and well-being in university students; and (4) there are differences between age range and psychological inflexibility and well-being in university students.

These findings can be further interpreted through the lens of Acceptance and Commitment Therapy (ACT), which conceptualizes psychological inflexibility as a central process underlying a wide range of mental health difficulties (Hayes et al., 2011). According to ACT, individuals with higher psychological inflexibility tend to engage in experiential avoidance and cognitive fusion, which limit their ability to act in line with personal values when faced with internal discomfort. In the context of university life, this rigidity can manifest in avoidance of academic challenges, social withdrawal, or maladaptive coping strategies, ultimately undermining psychological well-being. The significant negative association found in this study between inflexibility and well-being supports the ACT model's emphasis on promoting psychological flexibility as a protective factor for mental health (Kashdan & Rottenberg, 2010; Levin et al., 2014; Bonnier et al., 2025).

With respect to the first hypothesis, previous studies have documented a significant relationship between psychological inflexibility and psychological well-being (Mazzucchelli & Purcell, 2015; Calvo et al., 2020). However, these studies have generally relied on a correlational approach, without clarifying the predictive strength of the variables involved. In contrast, the present study provides evidence that psychological inflexibility is not only related to well-being but also serves as a significant predictor, explaining 25.3% of its variance—suggesting a stronger influence than previously reported.

Nonetheless, some studies conducted in Western European samples have reported weaker associations or nonsignificant predictive effects, particularly when accounting for psychological flexibility components such as mindfulness or emotional clarity (Brown & Ryan, 2003; Antonini Philippe et al., 2021). These differences may reflect cultural variations in emotional processing or the presence of moderating factors such as resilience or social support, which could buffer the negative impact of inflexibility on well-being in certain populations (Fletcher & Sarkar, 2013; Antonini Philippe et al., 2021). Thus, while the predictive power observed in this study is robust, it is important to consider contextual influences when generalizing these findings. From the Acceptance and Commitment Therapy (ACT) model (Hayes et al., 2006; 2012), this can be understood as a consequence of experiential avoidance and cognitive fusion, which hinder adaptive emotional responses and detachment from personal values. These processes, in turn, compromise well-being. Moreover, psychological inflexibility has been shown to predict symptoms of anxiety (Tan et al., 2023), depression (Ruiz & Odriozola, 2016; Tan et al., 2023), and posttraumatic stress disorder (Cheng et al., 2021), and is also linked to deficits in stress regulation (Wersebe et al., 2018), fear of negative evaluation, and psychological vulnerability (Uğur et al., 2021). These mechanisms could explain the pronounced effect observed in our findings.

Nevertheless, the remaining 74.7% of variance in psychological well-being may be influenced by other variables not included in the model. Among them, social support (Secor et al., 2017; Gloster et al., 2017), emotional intelligence (Cano-Manzano et al., 2024), coping strategies (Le Vigouroux et al., 2025), and socioeconomic conditions (Vogt et al., 2024) have been identified in the literature as key factors that can interact with psychological inflexibility to shape mental health outcomes in university populations.

Regarding the second hypothesis, a significant negative correlation between psychological inflexibility and psychological well-being in university students was confirmed. Similar results to our study were found regarding the correlation between both variables (Calvo et al., 2020), suggesting that as psychological inflexibility increases, psychological well-being decreases. Recent studies suggest that inflexibility may reduce the ability to experience positive emotions and cope effectively with stress (Fonseca et al., 2020; Levin et al., 2014). Additionally, psychological inflexibility has been shown to be an important factor in the decline of mental health due to the high demands placed on university students, who may exhibit higher levels of inflexibility, leading to lower levels of psychological well-being (Mazzucchelli & Purcell, 2015). People with high levels of rigidity may have difficulty experiencing positive emotions (Faustino et al., 2021).

While the relationship between psychological inflexibility and well-being has been widely supported (Pakenham et al., 2020), other studies conducted in European populations have reported weaker or nonsignificant associations, especially when controlling for mediating variables such as mindfulness or self-compassion (Duarte & Pinto-Gouveia, 2017; Pyszkowska & Rönnlund, 2021). These discrepancies highlight the need to explore cultural and psychological moderators that may attenuate or amplify this relationship across contexts.

The third hypothesis aimed to examine whether there were differences in psychological inflexibility and psychological well-being based on sex. Regarding well-being, the results revealed no significant differences between men and women, which is consistent with findings from previous studies that reported either no overall differences (González et al., 2020) or statistically insignificant ones (Sipaviciene, 2022). However, other research has pointed out that being female or younger is often linked to poorer mental health outcomes (Pakenham et al., 2020), suggesting potential moderating variables.

In contrast, a significant difference was observed in psychological inflexibility, with women scoring higher than men. This aligns with several studies that have documented sex-based differences (Turán, 2022), and others that associate elevated inflexibility in women with greater psychological distress and symptomatic burden—factors that in turn affect well-being (Sánchez-Puertas et al., 2022; Marín-Romero & García-Lecumberri, 2023). Notably, even in the absence of clinical disorders, women have been shown to exhibit higher psychological inflexibility than men (Moreno et al., 2023; Cano et al., 2024). Still, the literature remains mixed: some works report no significant differences between sexes in terms of inflexibility scores (Roales-Nieto et al., 2016; Arbinaga et al., 2024), which may reflect contextual or cultural moderating influences.

Finally, the results of the fourth hypothesis indicate that there are significant differences in the study variables based on the age range of university students. Psychological well-being tends to increase slightly with age, whereas psychological inflexibility decreases as age progresses. This pattern is consistent with the Socioemotional Selectivity Theory (Carstensen et al., 1999), which suggests that as individuals grow older, they increasingly focus on emotionally meaningful goals, fostering greater emotional regulation and subjective well-being. Recent evidence supports this theoretical framework, showing that older individuals tend to prioritize affective goals and exhibit higher levels of well-being (Vincent & Carstensen, 2023). In contrast, other studies have reported that age is not a significant predictor of well-being, showing no consistent relationship with that variable (Stamp et al., 2015). Regarding psychological inflexibility, consistent with our results, a negative association with age has been observed—indicating that inflexibility tends to decline as individuals grow older (Shima & Muto, 2024). However, some studies have not found significant associations between age and psychological inflexibility (Matos et al., 2025), highlighting the complexity of age-related psychological change.

In summary, this study contributes novel evidence by exploring psychological inflexibility and well-being in a nonclinical university population within the Peruvian context—an understudied region in the literature. Unlike prior works that rely primarily on correlational designs, this research applied explanatory models, revealing that psychological inflexibility accounts for over a quarter of the variance in well-being. Moreover, the inclusion of age and sex analyses enhances the granularity of the findings, offering practical implications for targeted interventions in student populations. The use of a locally validated instrument also strengthens the methodological rigor and cultural relevance of the study.

5. Conclusions

This study presents relevant data to better understand psychological inflexibility and its relationship with psychological well-being in university students. The results reveal that psychological inflexibility is a significant predictor of psychological well-being, indicating that higher levels of inflexibility are associated with lower mental well-being. Additionally, sex does not have a significant relationship with psychological well-being, suggesting that there are no differences between men and women in this regard. However, in relation to psychological inflexibility, the opposite is true, as women exhibit higher levels of inflexibility than men do. Finally, significant differences were found regarding the participants' age range. The findings contribute to the understanding of how psychological inflexibility impacts the psychological well-being of university students. Furthermore, this study highlights the importance of fostering effective psychological interventions and strategies to strengthen psychological flexibility in nonclinical populations.

Ethical considerations

The Ethics Committee of the Research Department at the Technological University of Peru, Arequipa, approved this research on August 22, 2023, with the ruling number 129--2023-CEI-UTP.

Conflict of Interest

The authors report no conflicts of interest in this work.

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