PSYCHOLOGICAL WELL-BEING AND MINDFULNESS ASSOCIATED WITH MENTAL HEALTH IN UNIVERSITY STUDENTS

BEM-ESTAR PSICOLÓGICO E MINDFULNESS ASSOCIADOS À SAÚDE MENTAL EM ESTUDANTES UNIVERSITÁRIOS

BIENESTAR PSICOLÓGICO Y MINDFULNESS ASOCIADOS A LA SALUD MENTAL EN ESTUDIANTES UNIVERSITARIOS

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ABSTRACT: The aim of this study was to investigate the relationships between mental health, mindfulness skills, and psychological well-being among university students. A total of 205 Psychology students from a higher education institution in the interior of São Paulo participated, assessed using validated instruments for Brazilian samples. The results indicated moderate levels of psychological distress, associated with low levels of physical activity and insufficient sleep. Negative correlations were observed between psychological distress and mindfulness ($\rho = -0.48$) and between distress and psychological well-being ($\rho = -0.63$), as well as a positive correlation between mindfulness and well-being ($\rho = 0.58$). Hierarchical regression analyses showed that mindfulness and psychological well-being explained a substantial proportion of the variance in psychological distress ($R^2 = 0.47$), outperforming sociodemographic variables. The findings suggest that psychological processes are central to understanding mental health in higher education and to the development of contextually oriented preventive interventions.

KEYWORDS: Mental Health. High Education. Psychological Well-Being.

RESUMO: *O objetivo deste estudo foi investigar as relações entre saúde mental, habilidades de mindfulness e bem-estar psicológico em estudantes universitários. Participaram 205 estudantes de Psicologia de uma instituição de ensino superior do interior de São Paulo, avaliados por meio de escalas validadas para a população brasileira. Os resultados indicaram níveis moderados de sofrimento psicológico, associados a baixos níveis de atividade física e sono insuficiente. Observou-se correlação negativa entre sofrimento psicológico e mindfulness ($\rho = -0,48$) e entre sofrimento e bem-estar psicológico ($\rho = -0,63$), além de correlação positiva entre mindfulness e bem-estar ($\rho = 0,58$). A regressão hierárquica indicou que mindfulness e bem-estar psicológico explicaram uma parcela substancial da variância do sofrimento psicológico ($R^2 = 0,47$), superando o poder explicativo das variáveis sociodemográficas. Os resultados sugerem que processos psicológicos são centrais para a compreensão da saúde mental no ensino superior e na elaboração de intervenções preventivas e contextualmente orientadas.*

PALAVRAS-CHAVE: *Saúde Mental. Ensino Superior. Bem-Estar psicológico.*

RESUMEN: *El objetivo de este estudio fue investigar las relaciones entre salud mental, habilidades de mindfulness y bienestar psicológico en estudiantes universitarios. Participaron 205 estudiantes de Psicología de una institución de educación superior del interior de São Paulo, evaluados mediante instrumentos validados para muestras brasileñas. Los resultados indicaron niveles moderados de malestar psicológico, asociados a bajos niveles de actividad física y sueño insuficiente. Se observaron correlaciones negativas entre malestar psicológico y mindfulness ($\rho = -0,48$) y entre malestar y bienestar psicológico ($\rho = -0,63$), así como una correlación positiva entre mindfulness y bienestar ($\rho = 0,58$). Los análisis de regresión jerárquica mostraron que mindfulness y bienestar psicológico explicaron una proporción sustancial de la varianza del malestar psicológico ($R^2 = 0,47$), superando variables sociodemográficas. Los hallazgos sugieren que los procesos psicológicos son centrales para comprender la salud mental en la educación superior y para el desarrollo de intervenciones preventivas y contextualizadas.*

PALABRAS CLAVE: *Salud Mental. Educación superior. Bienestar psicológico.*

INTRODUCTION

Entering and remaining in higher education (HE) represent a transitional period that requires students to develop specific skills to cope with the educational and social demands of this context. A substantial proportion of university students experience adaptation difficulties and psychological distress as a result of individual factors and/or the educational practices adopted by higher education institutions (HEIs) (Oliveira et al., 2025; Galán-Muros et al., 2024b; Gianfelice et al.,2024; Ghizoni et al., 2023).

Sahão and Kienen (2021) described a set of risk factors (e.g., academic demands, interpersonal relationships, lack of social support) and protective factors (e.g., social support, access to information, academic integration, and institutional characteristics) related to adaptation to higher education and the protection of students' mental health. In particular, the authors emphasized the need to understand the most common symptoms of psychological distress among university students as contextually influenced phenomena. Therefore, attention to institutional conditions, together with students' personal histories and behavioral repertoires (e.g., problem solving, self-management of academic activities, social skills, and self-awareness), should be considered when implementing interventions aimed at preventing psychological distress and promoting mental health and psychological well-being. These recommendations are consistent with UNESCO survey findings on mental health support for university students (Galán-Muros et al., 2024b).

Ariño et al. (2023) proposed an explanatory model of factors associated with impaired mental health among university students, encompassing individual factors (e.g., personality characteristics, skills and competencies, physical health conditions), contextual factors (e.g., interpersonal relationships, sociocultural and sociodemographic practices, and living environments), and academic stressors (e.g., academic demands, institutional practices, peer relationships, academic satisfaction, and satisfaction with one's degree program). Complementarily, Fior and Almeida (2023) identified four dimensions associated with successful adaptation to higher education: academic (i.e., teaching-learning processes), interpersonal (i.e., social support and peer relationships), institutional (i.e., institutional practices ranging from faculty interactions to infrastructure), and personal (i.e., individual repertoires related to well-being, autonomy, and self-efficacy). Together, despite their epistemological differences, the studies conducted by Sahão and Kienen (2021), Fior and Almeida (2023), and Ariño et al. (2023) contribute to a comprehensive understanding of the variables associated with university students' psychological well-being and mental health.

Collectively, these studies suggest that HEIs should consider both personal and contextual factors when designing institutional practices aimed at promoting students' well-being, sense of belonging, and development.

Given the multiplicity of factors associated with psychological distress among university students, the present study focuses on investigating self-perceptions and individual behavioral repertoires related to students' mental health. This focus is justified by the fact that such repertoires may or may not have been developed before entering higher education. Nevertheless, HEIs can—and should—intentionally create contexts that foster the development of these repertoires among their students (Galán-Muros et al., 2024b). Investigating individual characteristics provides a means of examining the intrapersonal and personal dimensions proposed by Fior and Almeida (2023). This perspective also encourages reflection on students' access to educational contexts that promote personal skills essential during and beyond university life.

Empirical evidence indicates that interventions based on Acceptance and Commitment Therapy (ACT) and mindfulness, particularly those aimed at developing psychological flexibility, attentional regulation, and values-guided action, produce positive effects on university students' well-being (Dawson et al., 2020; Almeida et al., 2022; Zuncan et al., 2023; Kämper et al., 2025).

From the ACT perspective, suffering is considered an inherent aspect of human life. However, individuals endowed with symbolic and verbal capacities tend to engage in complex behavioral processes (e.g., experiential avoidance and cognitive fusion) that intensify suffering and distance them from a values-oriented life (Luoma et al., 2022; Hayes et al., 2021). Consequently, discomfort and difficulties inherent in students' pursuit of their goals may generate negative private events (thoughts, emotions, and memories) associated with perceived incompetence, limitations, fear of failure, and overload. When students respond to these private events by attempting to eliminate or control them, they may compromise their academic performance, particularly when they lack effective coping repertoires. The central aim of ACT is to foster psychological flexibility in order to promote well-being without relying on immediate, yet ultimately ineffective, attempts to avoid difficult private experiences (e.g., sadness and anxiety). This approach does not ignore real-life adversities, such as social inequalities. Rather, by acknowledging these adverse conditions, it seeks to broaden individuals' coping repertoires.

Psychological flexibility refers to a repertoire of behaviors and is defined as "contacting the present moment fully as a conscious human being, and, based on what the situation affords, changing or persisting in behavior in the service of chosen values" (Hayes et al., 2021, p. 78). These behaviors are functionally organized into three broad response patterns: openness (acceptance/willingness and cognitive diffusion), awareness (present-moment contact and self-as-context), and engagement (values clarification and committed action). These processes do not represent a stable end state to be achieved after discrete interventions, but rather continuous practices in response to life's experiences. Accordingly, psychological well-being is not defined by the absence of suffering or psychopathological symptoms, but by the continuous development of behavioral patterns guided by personally chosen values.

The present study proposes a conceptual dialogue between ACT and psychological well-being (PWB) research developed within the humanistic and existential traditions, as both approaches conceptualize well-being as a multidimensional phenomenon associated with life purpose and meaning (Machado & Bandeira, 2012). In the Brazilian context, Machado et al. (2013) validated an instrument assessing PWB composed of six dimensions: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. These dimensions conceptually converge with the functional processes underlying psychological flexibility in ACT. It is important to emphasize, however, that ACT and PWB are grounded in distinct epistemological traditions, and the conceptual approximation proposed in this study refers exclusively to the interpretation of mental health adopted herein.

Beyond the conceptual proximity between ACT and psychological well-being, mindfulness skills deserve particular attention, as they facilitate conscious contact with present-moment experiences and awareness of private events, allowing individuals to relate to thoughts and emotions in a more open, flexible, and less reactive manner (Hayes et al., 2021; Luoma et al., 2022; Muñoz-Martínez et al., 2017). Mindfulness skills are consistent both with the awareness processes of psychological flexibility described by ACT and with dimensions of psychological well-being related to autonomy, purpose in life, and personal growth. According to Muñoz-Martínez et al. (2017), mindfulness skills constitute a complex behavioral repertoire (e.g., observing, describing, and nonjudgment of private events), whereas mindfulness interventions consist of contingency arrangements and experiential practices designed to foster the development of this repertoire.

In summary, university students frequently experience psychological distress associated with the demands of entering and remaining in higher education, with significant implications

for their mental health and psychological well-being. Considering that psychological well-being refers to positive self-perception, life purpose, and meaning, and that ACT promotes psychological flexibility through the expansion of coping repertoires, investigating these constructs jointly is both theoretically coherent and empirically relevant. Within this framework, mindfulness skills emerge as a plausible behavioral process linking psychological flexibility and psychological well-being. Therefore, the present study aimed to examine the relationships among mental health, mindfulness skills, and psychological well-being in undergraduate psychology students.

METHOD

This study employed a quantitative, observational, cross-sectional design using an online survey. Convenience sampling was adopted through direct invitations to undergraduate Psychology students at the university. The study was approved by the Research Ethics Committee (Approval No. 7,444,085; CAAE: 86804325.5.0000.5500), and all participants provided informed consent before completing the questionnaires.

Participants

The sample comprised 205 undergraduate Psychology students enrolled at a private university in the countryside of São Paulo State, Brazil, with a mean age of 23.4 years (SD = 7.7). Regarding gender, 163 participants (79.6%) identified as women, 39 (19.0%) as men, and 3 (1.4%) selected the category “other.” Additional sociodemographic characteristics (sexual orientation, race/ethnicity, employment during non-class hours, and psychiatric medication use) are presented in Appendix A.

Instruments

A sociodemographic questionnaire consisting of 14 items was used to characterize the participants. The questionnaire included items concerning lifestyle habits, such as hours of sleep, physical activity, psychological distress before entering higher education, and psychiatric medication use.

Depression, Anxiety and Stress Scale (DASS-21). The DASS-21 is a self-report instrument composed of 21 items distributed across three dimensions: depression, anxiety, and stress, each comprising seven items (Vignola & Tucci, 2014; Martins et al., 2019). The subscales demonstrated satisfactory reliability ($\alpha \geq .88$). Following the recommendation of Martins et al. (2019), Item 2 (e.g., "I was aware of dryness of my mouth") was excluded from the final score due to its low factor loading. Responses are recorded on a four-point Likert scale ranging from 0 to 3.

Psychological Well-Being Scale (PWBS). The Brazilian version of the Psychological Well-Being Scale was translated, adapted, and validated by Machado, Bandeira, and Pawlowski (2013) using a university student sample. The instrument comprises six dimensions: (I) Positive Relations with Others (CR = .82), (II) Autonomy (CR = .70), (III) Environmental Mastery (CR = .76), (IV) Personal Growth (CR = .84), (V) Purpose in Life (CR = .83), and (VI) Self-Acceptance (CR = .83). Items are rated on a six-point Likert scale ranging from 1 to 6.

Five Facet Mindfulness Questionnaire – Brazilian Version (FFMQ-Br). The Brazilian version of the FFMQ was translated, adapted, and validated by Barros et al. (2014) to assess self-perceived mindfulness skills in daily life. The instrument contains 39 items distributed across seven dimensions: (I) Nonjudging ($\alpha = .78$), (II) Acting with Awareness – Autopilot ($\alpha = .79$), (III) Observing ($\alpha = .76$), (IV) Describing – Positive Items ($\alpha = .76$), (V) Describing – Negative Items ($\alpha = .75$), (VI) Nonreactivity ($\alpha = .68$), and (VII) Acting with Awareness – Distraction ($\alpha = .63$). Although some factors showed relatively lower internal consistency, they were retained following the authors' recommendations. Responses are recorded on a five-point Likert scale ranging from 1 to 5.

Data Collection and Statistical Analysis

Data collection took place in classrooms between August and September 2025. Participants accessed a Google Forms questionnaire by scanning a QR code. Only fully completed questionnaires were included in the final database.

Statistical analyses were conducted using JASP (Version 0.19.3.0). Initially, descriptive statistics (e.g., means and standard deviations) were calculated for the global scores of the three instruments (DASS-21, PWBS, and FFMQ), together with their internal consistency estimates (Cronbach's alpha and McDonald's omega). Spearman's rank-order correlations were then computed between the overall mean scores of the three scales.

To examine the extent to which variables associated with psychological distress contributed to its explanation beyond the observed correlations, hierarchical linear regression analyses were performed using the overall mean DASS-21 score as the dependent variable. Three explanatory models were tested. The first model included sociodemographic and contextual variables (i.e., age, physical activity, and hours of sleep as continuous variables; gender, sexual orientation, and self-reported psychological distress before entering higher education as categorical variables), which served as control variables in the subsequent models. The second model added the overall mindfulness score (FFMQ), whereas the third model further included the psychological well-being score (PWBS). For each model, the coefficient of determination (R^2), the increase in explained variance (ΔR^2), standardized regression coefficients (β), and statistical significance values (p) were reported.

It should be noted that the use of self-report instruments and a convenience sample constitutes limitations of this study and restricts the generalizability of the findings.

RESULTS

The sample presented specific sociodemographic characteristics, being composed predominantly of women, White participants, and heterosexual individuals. Owing to the substantial imbalance among groups, mean comparisons (e.g., *t* tests) were not performed. Based on self-reported indicators of physical and mental health, 59.8% of participants reported engaging in physical activity fewer than twice per week, and 87.6% reported sleeping six hours or less per night. Regarding mental health, 79% reported experiencing psychological distress before entering higher education, 33.6% were taking psychotropic medication, and only 29.7% were currently engaged in psychotherapy. These data are presented in Appendix A and were not further analyzed because they were not the primary focus of this study.

Regarding the psychometric assessments, participants presented a mean psychological distress score (DASS-21) of 1.21 (SD = 0.63; min–max = 0.0–2.8). The mean scores for mindfulness skills (FFMQ) and psychological well-being (PWBS) were 3.16 (SD = 0.61; min–max = 1.58–4.63) and 4.20 (SD = 0.63; min–max = 2.2–5.5), respectively. All instruments demonstrated satisfactory internal consistency in the present sample. The DASS-21 total score yielded Cronbach's $\alpha = .90$ and McDonald's $\omega = .90$. For the PWBS, reliability coefficients were $\alpha = .91$ and $\omega = .90$, whereas the FFMQ presented $\alpha = .87$ and $\omega = .91$. Mean scores for

each subscale are reported in the supplementary material (Appendix B), as they were not the focus of the present investigation.

Spearman's correlations among the global scores for psychological distress, mindfulness skills, and psychological well-being are presented in Table 1. A significant, moderate negative correlation was observed between psychological distress and mindfulness ($\rho = -.48$, $p < .001$), indicating that higher levels of mindfulness skills were associated with lower levels of psychological distress.

A significant, strong negative correlation was also found between psychological distress and psychological well-being ($\rho = -.63$, $p < .001$), suggesting that students reporting higher levels of psychological well-being experienced lower levels of psychological distress. In addition, mindfulness and psychological well-being were positively and moderately correlated ($\rho = .58$, $p < .001$), indicating that higher levels of mindfulness skills were associated with higher levels of psychological well-being. Taken together, these findings demonstrate consistent associations among mindfulness skills, psychological well-being, and psychological distress, supporting the inclusion of these variables in multivariate models to examine their combined contribution to explaining psychological distress.

Table 1.
Correlation matrix for the DASS-21, PWBS, and FFMQ

	1	2	3
1. DASS-21	-	-	-
2. EBEP	ρ = - 0,630***	-	-
3. FFMQ	ρ = - 0,479***	ρ = 0,576***	-
p = .05*, p = .01**, p = .001***			

Note. The authors.

The results of the hierarchical linear regression analyses, using the DASS-21 psychological distress score as the dependent variable, are presented in Table 2. In Model 1, which included only sociodemographic and contextual variables (age, physical activity, hours of sleep, gender, sexual orientation, and previous psychological distress), the predictors explained a small proportion of the variance in psychological distress ($R^2 = .083$). In this model, only age was significantly associated with psychological distress, indicating higher levels of distress among younger students.

In Model 2, the inclusion of the overall mindfulness score (FFMQ) resulted in a substantial and statistically significant increase in explained variance ($\Delta R^2 = .211$, $p < .001$), increasing the total R^2 to .295. Mindfulness skills were negatively and significantly associated with psychological distress ($\beta = -.47$, $p < .001$), indicating that higher levels of mindfulness skills were associated with lower levels of psychological distress, regardless of the sociodemographic variables included in the model.

Finally, in Model 3, the inclusion of the overall psychological well-being score (PWBS) produced a further significant increase in explained variance ($\Delta R^2 = .177$, $p < .001$), resulting in a final model that explained approximately 47% of the variance in psychological distress ($R^2 = .472$). In the final model, psychological well-being emerged as the strongest predictor of psychological distress ($\beta = -.52$, $p < .001$). Mindfulness skills remained significantly associated with the outcome, although with a smaller effect size ($\beta = -.18$, $p < .01$).

Table 2.
Hierarchical linear regression models predicting psychological distress

	Variables	Model 1 β	Model 2 β	Model 3 β
Model 1	*Age*	- 0,15*	- 0,08	- 0,07
	Physical Activity	0,04	0,04	0,04
	Sleep	0,14†	0,09	0,07
	Gender (male)	0,15	0,07	0,08
	Sexual orientation (homosexual)	0,18	0,18	0,23*
	Previous psychological distress	0,07	0,06	0,03
Model 2	*FFMQ (overall)*	—	- 0,47***	- 0,18
Model 3	*EBEP (overall)*	—	—	- 0,52*
	R^2	0,083	0,295	0,472
	ΔR^2	—	0,211***	0,177***
	F change	1,76	57,81***	64,52***

Note. The authors. p < .10; p < .05, * p < .01, ** p < .001***.

Sociodemographic and contextual variables were not significantly associated with psychological distress in the final model, with the exception of homosexual sexual orientation, which remained positively associated with psychological distress, although with a small effect size. Overall, the findings indicate that psychological variables explained a substantially larger

proportion of the variance in psychological distress than sociodemographic and contextual variables, with psychological well-being emerging as the strongest predictor in the final model.

DISCUSSION

University students have increasingly experienced difficulties during the transition to and adaptation within higher education (Oliveira et al., 2025; Galán-Muros et al., 2024b; Gianfelice et al., 2024). Although such challenges are expected during transitional periods, individual, social, and institutional factors may function either as protective or risk factors for psychological distress among this population (Sahão & Kienen, 2021; Fior & Almeida, 2023; Ariño et al., 2023).

The present study aimed to examine the relationships among psychological distress, mindfulness skills, and psychological well-being in undergraduate Psychology students from a behavioral-contextual perspective grounded in Acceptance and Commitment Therapy (ACT). Overall, the findings demonstrated consistent associations among psychological well-being, mindfulness, and psychological distress, as well as the incremental contribution of the first two variables to explaining psychological distress.

The correlational analyses supported the hypothesis that higher levels of mindfulness skills and psychological well-being are associated with lower levels of psychological distress. Specifically, negative associations were observed between mindfulness and psychological distress, as well as between psychological well-being and psychological distress, whereas mindfulness was positively correlated with psychological well-being.

These findings are consistent with the ACT literature, which conceptualizes psychological distress as functionally related to patterns of psychological inflexibility, such as experiential avoidance and cognitive fusion (Hayes et al., 2021; Luoma et al., 2022; Dawson et al., 2020; Almeida et al., 2022; Zuncan et al., 2023). From this perspective, interventions that promote the development of mindfulness skills and behavioral repertoires associated with psychological well-being may expand individuals' coping resources rather than merely reducing psychological symptoms. Such interventions should therefore adopt a process-oriented and longitudinal perspective rather than relying exclusively on standardized protocols.

Although the construct of psychological well-being, as operationalized by the PWBS (Machado et al., 2013), originates from the humanistic tradition, the present findings support a conceptual dialogue with the behavioral-contextual perspective. This approximation does not

imply epistemological homogenization but rather acknowledges convergences in the multidimensional understanding of mental health. Dimensions such as self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth can be interpreted in light of ACT processes, including acceptance, cognitive defusion, present-moment awareness, values clarification, and committed action. In both perspectives, mental health is understood as the expansion of functional behavioral repertoires in the face of adversity rather than the mere elimination of symptoms.

Building upon these initial associations and the theoretical framework adopted, the present study sought to examine more precisely the specific contribution of different sets of variables to explaining psychological distress. To this end, hierarchical regression models were tested to evaluate the incremental contribution of sociodemographic variables, mindfulness skills, and psychological well-being.

In the first model, sociodemographic and contextual variables (age, physical activity, hours of sleep, gender, sexual orientation, and self-reported psychological distress prior to entering higher education) were included based on previous evidence linking these factors to university students' mental health (Sahão & Kienen, 2021; Fior & Almeida, 2023; Ariño et al., 2023). However, this set of variables explained only a small proportion of the variance in psychological distress ($R^2 = .083$) when compared with the process variables included in the subsequent models.

It is possible that the characteristics of the sample—predominantly composed of women, White, and heterosexual participants, with a mean age of 23.4 years—reduced the variability of these variables in the present study. This relative homogeneity may have contributed to the limited explanatory power of the sociodemographic indicators, although this interpretation should be considered with caution.

In the second model, the inclusion of mindfulness skills substantially increased the proportion of explained variance ($R^2 = .295$), revealing a moderate negative association with psychological distress. This finding suggests that behavioral repertoires related to attentional regulation, discrimination of private events, and present-moment awareness constitute important factors for understanding psychological distress among university students. From the ACT perspective, these skills belong to the awareness dimension of psychological flexibility, characterized by an expanded contextual awareness of thoughts and emotions. These findings reinforce the relevance of interventions aimed at developing mindfulness skills, not only as

therapeutic resources but also as preventive strategies applicable across different academic contexts.

In the third model, the inclusion of psychological well-being produced a further significant increase in explained variance (R^2 = .472), resulting in the set of variables most strongly associated with psychological distress. The dimensions of self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth were consistently associated with lower levels of psychological distress. Part of this association may reflect conceptual overlap between indicators of positive psychological functioning and indicators of emotional symptomatology. Nevertheless, despite this theoretical proximity, the hierarchical regression model demonstrated that psychological well-being contributed independently and incrementally to explaining psychological distress, exceeding the contribution of both sociodemographic variables and mindfulness skills when these variables were considered separately.

The dimensions of psychological well-being may also be interpreted in light of the other components of psychological flexibility described in ACT, particularly the openness processes (acceptance and cognitive diffusion) and the engagement processes (values clarification and committed action). From this perspective, mental health is not defined by the absence of negative private events but rather by the ability to establish a functional relationship with such experiences while maintaining engagement in values-guided actions. Accordingly, the findings of the present study suggest that behavioral repertoires associated with psychological well-being may reflect broader patterns of psychological flexibility.

The characteristics of the sample limit the generalizability of the findings, particularly because the participants were Psychology students from a private university. Nevertheless, several health-related indicators deserve attention. Approximately 41% of participants did not engage in regular physical activity, and nearly 60% reported sleeping six hours or less per night. Furthermore, one-third reported using psychiatric medication, whereas the majority were not receiving psychotherapy.

These findings reinforce UNESCO's recommendations regarding the role of higher education institutions in promoting environments that foster not only technical training but also personal development and mental health care (Galán-Muros et al., 2024b, 2024a). In the specific case of Psychology, whose professional practice involves caring for others, it is worth questioning whether current curricular guidelines sufficiently address the development of repertoires related to self-awareness and emotional regulation. Although these considerations

are not limited to Psychology programs, they are particularly relevant given the specific demands of mental health training.

Finally, it is important to emphasize that mindfulness skills and characteristics associated with psychological well-being may, at first glance, appear to be strictly individual attributes. However, from a behavioral-contextual perspective, these repertoires are learned, maintained, and refined within complex social contexts. Therefore, the relatively smaller contribution of sociodemographic variables in the final model should not be interpreted as evidence that social factors do not influence mental health. Rather, these variables may not have directly captured the broader cultural contexts that shape practices of self-description, self-regulation, and autonomy. This interpretation seeks to avoid attributing responsibility solely to individuals and instead underscores the importance of analyzing the social contingencies that shape behavioral repertoires related to mental health.

Several methodological limitations should be considered when interpreting the findings. First, the cross-sectional design does not allow causal inferences regarding the relationships among mindfulness, psychological well-being, and psychological distress, limiting the conclusions to associations among these variables. Longitudinal studies may help determine whether these behavioral repertoires predict changes in mental health indicators throughout students' academic trajectories.

Second, all variables were assessed using self-report instruments, which may introduce common method bias and inflate associations among conceptually related constructs, particularly between psychological well-being and psychological distress. Although the hierarchical regression models allowed the examination of incremental contributions, future research could incorporate multiple sources of data, as well as complementary observational and physiological measures. Another limitation of the present study was the lack of a more detailed characterization of the sample's socioeconomic conditions, particularly regarding the distinction between scholarship recipients and non-recipients. This variable is highly relevant and should be investigated in future studies to examine the effects of social class on mental health care and psychological well-being.

Furthermore, the sample consisted exclusively of Psychology students from a private university, limiting the generalizability of the findings to other academic programs, institutional contexts, and social groups. Studies involving more diverse samples may help determine whether these patterns of association remain stable across different sociocultural contexts. Multicenter studies including both public and private universities from different regions of the

state or country could provide a broader characterization of these realities and support the design of programs tailored to the specific needs of each context. In the absence of more comprehensive contextual data, we recommend that detailed needs assessment and population characterization studies be conducted before implementing mental health, well-being, and quality-of-life programs, thereby avoiding the standardized adoption of generic intervention protocols that fail to consider contextual specificities.

Finally, the conceptual overlap between the dimensions of psychological well-being and indicators of emotional symptomatology may have partially influenced the magnitude of the observed associations. Future studies may employ mediation models or structural equation modeling to examine more precisely the process mechanisms linking mindfulness, psychological well-being, and mental health.

Although the importance of descriptive and inferential statistics is fully acknowledged, from a behavioral-contextual perspective these data should be interpreted with caution. As Skinner (1953/2003) famously noted, *means do not behave; people do*. Accordingly, several recommendations can be made. Interviews and focus groups may complement quantitative findings by incorporating first-person accounts from students, thereby providing a richer understanding of the difficulties and strengths identified in the present study. In addition, case-control studies with larger samples could group students according to high, intermediate, and low scores across the different assessments, making it possible to investigate the personal, social, and institutional characteristics associated with these profiles. It is plausible that, even within the same university or academic program, different groups of students may require distinct interventions tailored to their specific contexts and needs.

FINAL CONSIDERATIONS

Interventions aimed at developing mindfulness skills and behavioral repertoires associated with psychological well-being generally require relatively low structural investment while offering considerable potential for implementation within academic settings. The findings of the present study indicate that these variables explained a substantial proportion of the variance in psychological distress, exceeding the contribution of isolated sociodemographic factors. These results underscore the importance of institutional programs that foster the continuous development of skills related to self-regulation, values clarification, and behavioral engagement, particularly when implemented longitudinally and integrated into student

retention policies. Future research and institutional initiatives are encouraged to draw upon UNESCO reports to identify evidence-informed strategies that universities can implement to promote mental health and well-being across the academic community (Galán Galán-Muros et al., 2024b; 2024a).

However, when mental health is understood from a behavioral-contextual perspective, isolated or exclusively remedial interventions become insufficient. Psychological distress is an inherent part of the human experience; nevertheless, inflexible patterns of relating to oneself, to others, and to the surrounding environment may intensify such distress and restrict behavioral repertoires. From the perspective of Acceptance and Commitment Therapy (ACT), symptoms associated with psychological distress should be understood in relation to the historical and cultural contingencies that shape coping strategies. Attempts to avoid or control unpleasant private events may, paradoxically, intensify distress and reduce engagement in meaningful life experiences.

Accordingly, the findings of the present study reinforce the importance of promoting psychological flexibility as a central process in understanding and addressing psychological distress among university students. By demonstrating robust associations among psychological well-being, mindfulness skills, and lower levels of psychological distress, this study contributes to strengthening preventive models that integrate personal development, institutional context, and the functional analysis of behavior. Promoting mental health in higher education therefore requires institutional practices that expand opportunities for students to develop repertoires of self-description, self-regulation, and values-guided action, recognizing that such skills are socially constructed and continuously refined throughout the academic experience.

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APPENDIX A

Table 3.

Sociodemographic Characteristics and General Health Indicators of the Participants.

Age	23,4 (7,7)
Gender	
Female	163 (79,6%)
Male	39 (19,0%)
others	3 (1,4%)
Race/Ethnicity	
White	173 (84,3%)
Black and Brown	28 (13,6%)
Asian	4 (1,9%)
Sexual Orientation	
Heterosexual	137 (66,8%)
Bisexual	45 (21,9%)
Homosexual	16 (7,8%)
Others	7 (3,4%)
Physical Activity	
No	85 (41,4%)
1x	19 (9,2%)
2x	19 (9,2%)
3x	53 (25,8%)
Every day	29 (14,1%)
Hours of sleep	
< 4	2 (0,9%)
5	48 (23,4%)
6	75 (36,5%)
7	55 (26,8%)
8	22 (10,7%)
>8	3 (1,4%)
Psychological Distress Prior to University	
Yes	162 (79%)
No	26 (12,6%)
I don't know	17 (8,2%)
Use of Psychiatric Medication	
Yes	61 (29,3%)
No	135 (65,8%)
Occasionally	9 (4,3%)
Currently Receiving Psychotherapy	
Yes	61 (29,7%)
No	144 (70,2%)

APPENDIX B

Table 4.

Overall Means and Subscale Means for Each Instrument, and Their Reliability Indices

	Média (DP)	**ω McDonald**	**α Cronbach**
DASS-21	1,21 (0,63)	0,933	0,929
Depression	1,19 (0,81)	0,903	0,900
Anxiety	0,93 (0,71)	0,851	0,842
Stress	1,56 (0,69)	0,857	0,857
EBEP	4,20 (0,63)	0,904	0,914
Positive Relations with Others	4,26 (0,97)	0,682	0,622
Autonomy	3,54 (0,93)	0,708	0,697
Environmental Mastery	1,10 (0,98)	0,720	0,823

Personal Growth	5,41 (0,52)	0,690	0,682
Purpose in Life	4,44 (1,02)	0,708	0,843
Self-Acceptance	4,13 (0,83)	0,866	0,856
FFMQ	3,16 (0,61)	0,909	0,863
Nonjudging	3,21 (1,00)	0,871	0,873
Acting with Awareness – Autopilot	3,13 (1,02)	0,861	0,838
Observing	3,22 (0,84)	0,746	0,749
Describing (Positive Items)	3,18 (0,97)	0,740	0,737
Describing (Negative Items)	3,61 (1,01)	0,410	0,22
Nonreactivity	2,59 (0,74)	0,712	0,704
Acting with Awareness – Distraction	3,01 (1,18)	0,825	0,863

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