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Mental Health and Social Skills among First-Year Psychology Students in Public and Private Universities

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Abstract: University students' mental health is influenced by multiple factors, including institutional characteristics and student profiles. This study aimed to characterize and compare psychology students from two types of institutions (46 from a private university and 37 from a public university) in terms of sociodemographic characteristics, mental health (depression and anxiety), and social skills repertoire. Students from the private institution presented higher levels of anxiety and interpersonal difficulties, whereas no significant differences in depression were observed between groups. Mental health problems were associated with being female, a more limited social skills repertoire, and greater interpersonal difficulties. These findings contribute to the development of public policies in both educational and social domains, aiming to promote mental health and enhance students' career adaptability in an increasingly dynamic and uncertain context.

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Keywords: anxiety, depression, social skills, university students, higher education institutions

Saúde Mental e Habilidades Sociais de Ingressantes em Psicologia de Faculdades

Pública e Privada

Resumo: A saúde mental do universitário é influenciada por vários fatores e particularidades da instituição de ensino e perfil de seus estudantes podem fazer parte dessas variáveis. Este estudo objetivou caracterizar e comparar estudantes de dois tipos de faculdades (48 alunos de faculdade privada e 37 de pública) com relação as características sociodemográficas, saúde mental (depressão e ansiedade) e habilidades sociais. Estudantes da faculdade privada apresentaram mais ansiedade e dificuldades interpessoais, mas não houve diferença significativa na depressão entre os grupos. Problemas de saúde mental mostraram-se associados ao sexo feminino, menor repertório de habilidades sociais e maiores dificuldades interpessoais. A presente investigação oferece subsídios para políticas públicas mais direcionadas tanto no âmbito educacional quanto social, buscando promover não apenas a saúde mental, mas também a adaptabilidade de carreira dos jovens em um cenário de constantes mudanças.

Palavras-chave: ansiedade, depressão, habilidades sociais, estudantes universitários, instituições de ensino superior

Salud Mental y Habilidades Sociales de Ingresantes en Psicología de Universidades

Públicas y Privadas

Resumen: La salud mental de los universitarios se ve influenciada por factores y particularidades de la institución educativa y de sus estudiantes. Este estudio tuvo como objetivo caracterizar y comparar a estudiantes de dos facultades (48 de una universidad privada y 37 de una pública) con respecto a las características sociodemográficas, depresión,

Belei-Miyazaki, G., et al. (2026). Mental health & Social skills of Psychology Freshmen. ansiedad y repertorio de habilidades sociales. Se aplicaron cuestionarios sociodemográficos, Inventarios de Ansiedad y Depresión de Beck, Inventario de Habilidades Sociales-Del Prette y Cuestionario de Habilidades Sociales, Conductas y Contextos para Universitarios. Los estudiantes de la universidad privada presentaron mayores niveles de ansiedad y más dificultades interpersonales, pero no se observaron diferencias significativas en depresión entre los grupos. Los problemas de salud mental se asociaron con el sexo femenino, un repertorio más reducido de habilidades sociales y mayores dificultades interpersonales. La presente investigación ofrece evidencias para orientar políticas públicas tanto en el ámbito educativo como social, con el objetivo de promover no solo la salud mental, sino también la adaptabilidad profesional de los jóvenes en un contexto de cambios constantes.

Palabras clave: ansiedad, depresión, habilidades sociales, estudiantes universitarios, instituciones de educación superior, universidad pública, universidad privada

The last two decades have been marked by a significant increase in the number of Brazilian university students (Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira [INEP], 2022). However, being enrolled in a higher education program does not always ensure its completion: the dropout rate in on-campus programs in 2022 was 27.7%, and most dropouts occurred in the first year (Instituto do Sindicato das Mantenedoras do Ensino Superior [SEMESP], 2024). Problems with social and academic integration are among the main reasons for dropout (Gul et al., 2023; Naidoo & Oosthuizen, 2024).

Potentially challenging situations at university include, for example, increased demands and overload of academic tasks and interpersonal relationships with faculty members, administrators, and peers (Bolsoni-Silva & Loureiro, 2015; Gul et al., 2023; Mastrokourou et al., 2024). The contingencies involved in such a new context may require the young incoming student to exhibit behavioral repertoires they do not possess, or to make

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changes to their behavioral repertoire with a high behavioral cost. Such situations may increase the likelihood of psychological distress and vulnerability to mental health problems, such as depression and anxiety (Ahmed et al., 2023; Bolsoni-Silva & Loureiro, 2015).

Global rates of depression among university students range from 18.41% to 69.5% (Islam et al., 2022; Mason et al., 2025). A meta-analysis involving more than 75,000 university students from low- and middle-income countries, including Brazil, indicated a prevalence of depression of 24.4% among these students (Akhtar et al., 2020). Anxiety is also present in the university population across several countries worldwide, ranging from 23.63% to 61% (Islam et al., 2022; Mason et al., 2025). Among Brazilian university students, the prevalence of depression and anxiety ranged from 3.8% to 64.9% for depression and from 10.8% to 51.9% for anxiety (Bolsoni-Silva & Loureiro, 2015; Maltoni et al., 2019). A meta-analysis of studies on Brazilian university students concluded that 37.75% presented with anxiety and 28.51% with depression (Demenech et al., 2021).

Specific coping skills and repertoires are important for dealing with the difficulties present in university life. The presence or absence of these repertoires facilitates or hinders adaptation to university, affecting retention and performance in the chosen program (Bolsoni-Silva & Loureiro, 2015, 2016; Mastrokourou et al., 2024; Naidoo & Oosthuizen, 2024). The literature highlights social skills (SS) among the coping skills and repertoires that assist university students in their experiences. Studies indicate that individuals with deficits in social skills may be more vulnerable to psychological distress, as they have less access to the protective effects of social support (Gul et al., 2023; Segrin, 2019).

Social skills (SS) refer to specific classes of behavior that form part of an individual's repertoire and enable them to competently navigate interpersonal situations, fostering healthy and productive interactions across different contexts (e.g., family, school, university, work, and leisure). SS begin to develop in childhood within the family and later expand to other

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contexts. They include complementary skills, such as communicating, public speaking, making friends, defending one's own rights, expressing feelings appropriately, and regulating emotions (Del Prette & Del Prette, 2009). Although there is no consensus in the literature regarding the concept of SS, it can generally be understood as a set of socially learned behaviors related to an individual's ability to solve problems and engage in positive and ethical social interactions (Bolsoni-Silva & Carrara, 2010).

A systematic literature review on the transition from secondary to higher education identified protective and risk factors for this new context, including both individual and contextual variables. Good sleep habits and social and family support are positive factors, whereas discrimination and low levels of resilience are negatively associated with satisfactory adjustment upon entering university (Braun et al., 2024). Since SS can contribute to social and family support, as well as enhance resilience and coping in the face of discrimination, they constitute an essential repertoire to be evaluated and promoted in students, especially during the transition to university.

Both the SS repertoire and mental health can interfere with the initial academic performance of university students. A young person who possesses an appropriate repertoire of SS is better equipped to face the difficulties of academic life in a thoughtful and adaptive manner, as they consider their own demands and the demands of others and negotiate and communicate assertively (Bolsoni-Silva & Loureiro, 2015; Gul et al., 2023; Quispe-Quispe, 2022).

The mental health of university students is influenced by individual, academic, and sociodemographic factors (Bolsoni-Silva & Loureiro, 2016), as well as by the particularities of the educational institution and its students' profile. Graner and Cerqueira (2019) found that the psychological distress of university students is multidetermined. Their study identified variables such as demographic risks (being a woman, being older, and having a low income);

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health risks (being a smoker, being sedentary, having health problems, feeling stressed, eating inadequately or unhealthily); relational risks (difficulty relating to friends and other people, problems adapting to academic life, feeling rejected, not receiving support); academic risks (year of the program, excessive working hours, difficulty reconciling leisure and study time, having considered dropping out of the program, and perceiving it as a source of tension/stress); psychological risks (high frequency of escape/avoidance coping strategies, emotion-focused or passive coping strategies, high perfectionism, and low self-esteem); and social/violence risks (discrimination based on race, age, or social class, perception of a negative university climate, having experienced violence, and concerns about personal safety).

The profile of Brazilian university students differs between types of HEIs, namely private and public institutions. Data from SEMESP (2024) indicate that 60.7% of students in private HEIs were women. These women were primarily enrolled in evening programs, worked to support their studies, and one in five was the head of household. In public universities, by contrast, the proportion of women was lower (52.5%), and students were more likely to attend full-time programs, not work, and only 14% were heads of household.

The differences between types of HEIs are also evident in undergraduate psychology programs. Yamamoto et al. (2011) analyzed sociodemographic data from over 23,000 psychology students who participated in the ENADE exam and categorized them into two groups. The first group consisted of students from public vocational high schools whose parents had low levels of education, with family incomes of up to five times the minimum wage, who worked while pursuing higher education in private institutions. The second group consisted of students from private high schools whose parents had completed higher education, with family incomes between 10 and 30 times the minimum wage, who did not work and predominantly attended public institutions.

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Few studies examine the differences and similarities in sociodemographic profiles, mental health symptoms, and behavioral characteristics between university students from private and public institutions. Kumar et al. (2019) analyzed anxiety, depression, and stress in 312 graduating medical students from private and public institutions in Pakistan. They found that mean anxiety and stress scores were higher among students from private institutions, whereas mean depression scores were higher among those from public institutions. In Brazil, the scarcity of studies on this topic may be related to “cultural differences regarding the profile of public and private institutions as they vary across countries” (Maltoni et al., 2019, p. 8). Therefore, a gap in scientific knowledge remains, as the effects of institutional variables on students’ mental health and training are still unclear.

Identifying symptoms of mental disorders and the SS repertoire of incoming students can contribute to student retention and improved academic performance (Gul et al., 2023). Understanding the differences and similarities among students, considering the types of institutions and sociodemographic variables, can facilitate the identification of factors related to mental health and SS, thereby enabling more targeted interventions to address the needs of these populations. Thus, the objective of this study was to characterize and compare incoming psychology students from two types of universities, private and public, regarding their sociodemographic characteristics, mental health (depression and anxiety), and SS repertoire.

Method

Participants

The study included 83 first-year psychology students, 46 from private institutions and 37 from public institutions, both located in cities with approximately 500,000 inhabitants in the State of São Paulo, Brazil. Participants’ ages ranged from 17 to 36 years (mean 19.72 ± 3.5).

Instruments

Sociodemographic questionnaire addressing personal identification data, marital status, occupation, living arrangements, study schedule, program, institution, and class period (morning, afternoon, evening, or full-time).

Questionário de Habilidades Sociais, Comportamentos e Contextos para Universitários (QHC-Universitários) (Social Skills, Behaviors, and Contexts Questionnaire for University Students; QHC-Student) (Bolsoni-Silva & Loureiro, 2015) assesses categories and frequency of university students' behaviors according to different interlocutors and contextual variables. The instrument is divided into two parts. Part 1 contains 19 frequency items rated on a 3-point Likert scale and comprises three factors identified through exploratory factor analysis: Factor 1 – Communication and Affect (communication skills, expression of positive feelings, and expression of opinions), Factor 2 – Coping (ability to express negative feelings, give and receive criticism), and Factor 3 – Public Speaking (skills related to public speaking and presenting seminars). Part 2 consists of 24 items that qualitatively assess behavioral characteristics, including communication, expression of positive and negative feelings, expression of opinions, giving and receiving criticism, public speaking skills, and seminar presentations. These items consider situational variables, topics, student behaviors, interlocutor behaviors (parents, guardians, romantic partners, classmates, and friends), and students' feelings. Exploratory factor analysis identified two factors in Part 2—Strengths and Weaknesses—which evaluate the quality of social interactions across the contexts experienced by university students. Strengths reflect potentially reinforcing interactions, based on the frequency of contexts, behaviors, consequences, and positive feelings. Weaknesses indicate less reinforcing environments and a more limited behavioral repertoire, characterized by unskillful behaviors and negative feelings experienced in social

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contexts. Evidence of validity indicates that the Strengths and Weaknesses measures are associated with established indicators of mental health, particularly depression and anxiety, and allow for the identification of behavioral patterns at both clinical and non-clinical levels (Bolsoni-Silva & Loureiro, 2016). Reliability studies reported α of 0.772 for items and 0.630 for categories in Part 1, and 0.933 for items and 0.621 for categories in Part 2. Discriminant validity analyses demonstrated differences according to mental health status, sex, academic program, and year of study (Bolsoni-Silva & Loureiro, 2015, 2016).

The Social Skills Inventory (SSI-Del-Prette) is a self-report instrument composed of 38 items divided into 5 factors: Coping and Self-Assertion with Risk (Factor 1); Self-Assertion in the Expression of Positive Affect (Factor 2); Conversation and Social Confidence (Factor 3); Self-Exposure to Unknown People and New Situations (Factor 4); and Self-Control of Aggressiveness (Factor 5). Participants are asked to indicate the frequency with which they respond as described in each item using a Likert-type scale (Del Prette & Del Prette, 2001). The α coefficients for the factors ranged from 0.9650 to 0.7413, indicating high internal consistency for the SSI.

Beck Anxiety Inventory (BAI) and *Beck Depression Inventory (BDI)* are self-report instruments recommended for clinical and non-clinical populations (Cunha, 2001). Each instrument consists of 21 items that assess the presence and intensity of symptoms related to anxiety (BAI) or depression (BDI), using a Likert-type scale ranging from 0 (absence of symptoms or mild) to 3 (severe or intense). Total scores are obtained by summing item responses and are classified into four categories: minimal, mild, moderate, and severe. Evidence indicates satisfactory internal consistency, with α coefficients in a psychiatric sample ranging from 0.79 to 0.91 for the BDI and above 0.90 for the BAI. The instruments have also demonstrated evidence of construct, convergent, discriminant, and factorial validity.

Procedure

Data Collection. Data were collected during the first two months of the academic year, outside the examination period, in the classroom, and on different dates for each institution. At the private institution, 46 students (80.7% of the students enrolled in the class) completed the instruments in February 2018. At the public institution, the instruments were completed in March 2019 (19 participants, corresponding to 95% of the class) and in 2020 (18 participants, representing 90% of those enrolled). All students present in regular classes on the data collection dates were invited to participate in the study and received and signed the informed consent form. Participants were then instructed on how to answer each questionnaire in the following order: Sociodemographic Questionnaire, QHC-Student, SSI-Del-Prette, BAI, and BDI.

Data Analysis. Data from the instruments were coded according to the respective scoring instructions, considering numerical and categorical variables, and were organized using Excel and SPSS. The categorical classification into Clinical and Non-clinical groups for the mental health instruments was based on the symptom severity: participants reporting moderate or severe symptoms on the respective inventories were categorized as Clinical. Scores on the SSI-Del-Prette were classified as Clinical when the assessment indicated performance below that expected for the population, suggesting the need for SS training.

The initial comparative analyses between students from public and private institutions focused on demographic variables. Subsequently, mental health indicators (BAI and BDI) and social skills (QHC-Student and SSI-Del-Prette) were compared. Social skills were assessed using two distinct instruments because they were considered complementary in relation to the construct of social skills described in the introduction. Whereas the SSI-Del-Prette evaluates a broad range of social situations, the QHC-Student focuses on critical social interactions for

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university students with different interlocutors, considering frequency, interaction context, and the behavioral and emotional effects of these interactions.

Since the variables sex, romantic partner status, and mental health indicators did not differ between the students from private and public institutions, subsequent analyses were conducted using these measures as independent variables. For mental health indicators, participants classified as Clinical on the BDI, BAI, or both were included in the Clinical group. Finally, a binary logistic regression analysis was conducted with mental health status as the dependent variable and sex, romantic partner status, and social skills repertoire as independent variables.

Non-parametric tests were used for numerical variables (Mann-Whitney and Spearman tests) and the Chi-square test was used for categorical variables. This decision was made because the data, as a whole, did not meet the assumptions of normality according to the Kolmogorov–Smirnov and Shapiro–Wilk tests, as well as kurtosis and skewness criteria and the sample size criterion. The sample size calculation, considering the population of psychology students in Brazil to be 289,800 (Mattos & Rocha, 2023), with a 5% sampling error and a 90% confidence level, resulted in a required sample of 174 students, which exceeds the sample size of the present study. A significance level of 0.05 was adopted for all comparison tests and regression analyses. Results are presented in tables. Variations in the number of participants across tables are attributable to missing data in the specific instruments.

Ethical Considerations

Participants were invited to participate in an individual feedback session on the collected data, received individualized guidance regarding their data, and referrals were

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suggested when necessary. The project was approved by the Research Ethics Committee (CEP) under opinion number 2.491.770/2018, CAEE 81977418.6.0000.5398.

Results

Students in private institutions had a mean age of 20.08 years ($SD = 4.50$); most were women (71.7%), single (93.5%), did not have a romantic partner (60.9%), worked (63%), lived with their families (97.8%), and attended evening classes (100%). Students from public institutions, by contrast, were enrolled in full-time programs and had a mean age of 19.38 years ($SD = 1.69$); most were women (67.6%), all were single, most did not have a romantic partner (81.1%), did not work (94.6%), and lived with friends (45.9%), while a substantial portion (43.2%) lived with their families. Significant differences were found between the groups regarding employment status, living arrangements, and year of the program.

Table 1 presents the findings related to significant differences between institutions in clinical indicators of mental health and social skills among students. Mean anxiety scores were significantly higher among students from private institutions. Regarding social skills indicators, students from public institutions obtained significantly higher scores only on Factor 3 of the SSI (Conversation and Social Confidence). A significant difference was found between the groups in the Weakness factor of the QHC, with mean scores for students from public institutions significantly lower than those from private institutions. No differences were found in the Clinical or Non-Clinical classification of social skills between participants from both institutions.

Table 1

Comparisons between students from private and public HEIs on clinical indicators of mental health and social skills.

Numerical variables			
	Private ($n = 43$)	Public ($n = 37$)	<i>p</i> -valu

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	Mean (<i>SD</i>)	Mean (<i>SD</i>)	<i>e</i>	
BAI	18.79 (12.37)	13.73 (10.35)	.02	
BDI	12.00 (6.92)	10.73 (7.49)	.36	
SSI Factor 3 – Conversation and Social Confidence	2.30 (0.68)	2.63 (0.67)	.01	
QHC - Weaknesses	43.78 (21.43)	35.84 (21.71)	.05	
Categorical variables				
	Private (<i>n</i> =43) <i>n</i> (%)	Public (<i>n</i> =37) <i>n</i> (%)	χ^2	<i>p</i>
BAI			1.392	.24
Clinical	17 (39.5)	10 (27)		
Non-Clinical	26 (60.5)	27 (73)		
BDI			0.681	.41
Clinical	6 (13.9)	3 (8.1)		
Non-Clinical	37 (86.1)	34 (91.9)		

Note. BAI, Beck Anxiety Inventory; BDI, Beck Depression Inventory; SSI, Social Skills Inventory (SSI-Del-Prete); QHC, Social Skills, Behaviors and Contexts Questionnaire for University Students.

In Table 2, participants were divided into two groups: Clinical (those who obtained clinical scores on the BAI, BDI, or both) and Non-Clinical (those who did not present scores indicative of mental health problems on either instrument). Comparison and regression analyses indicated that social skills scores (measured by the SSI total score), as well as Factor 3 and Factor 4 (Conversation and Social Confidence and Self-Exposure to Unknown People and New Situations), were significantly higher among students who did not present clinical symptoms of anxiety or depression. Women presented significantly more clinical mental health problems than men. Table 2 also presents the results of the binary logistic regression analysis, in which mental health status was entered as the dependent variable and age, sex, romantic partner status, and social skills were included as independent variables.

Table 2

Analysis comparing mental health problems and social skills among students, and binary logistic regression analysis with mental health problems as the dependent variable, with age, sex, romantic partner status, and social skills as the independent variables.

Categories	Clinical (<i>n</i> =26)	Non-Clinical (<i>n</i> =56)*
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Numerical variables		Mean (SD)		<i>p</i>	
SSI Total		79.11 (18.59)	93.76 (18.36)	.00	
SSI Factor 3 Conversation and social confidence		5.67 (2.09)	7.33 (1.72)	.00	
SSI Factor 4 Self-Exposure to Unknown People and New Situations		2.70 (1.5)	3.52 (1.42)	.03	
Categorical variables		Clinical	Non-Clinical	χ^2	<i>p</i>
Sex				4.098	.04
Women		22 (84.6)	35 (62.5)		
Men		4 (15.4)	21 (37.5)		
Logistic regression analysis – mental health problems					
	<i>Exp</i> (B)	<i>p</i>	CI (95%)	R ² Cox & Snell	R ² Nagelkerke
Sex	0.464	.05	0.092; 1.001	0.053	0.074
Romantic partner status	0.512	.19	0.188; 1.398	0.021	0.029
SSI-Total	0.960	.00	0.741; 1.853	0.114	0.159
SSI- Factor 3	0.624	.00	-0.009; 0.176	0.148	0.208
SSI- Factor 4	0.673	.02	-0.110; 0.093	0.066	0.092
QHC- Weaknesses	1.023	.04	1.000; 1.046	0.051	0.071

Note. *Available for 56 students for the QHC and 55 students for the SSI. SSI-Del-Prette Social Skills Inventory; QHC, Social Skills, Behaviors and Contexts Questionnaire for University Students.

The results of the binary logistic regression, presented in Table 2, indicated that the occurrence of indicators of mental health problems among the university students had the following risk predictors: being female (explaining 7.4% of the variation), lower SS scores on the SSI (Total Score, F3, and F4), which explained, respectively, 15.9%, 20.8%, and 9.2% of the variation in mental health in the sample, and higher scores on the QHC Weaknesses factor (explaining 7.1% of the variation in the sample).

Discussion

This investigation characterized and compared incoming psychology students in terms of sociodemographic variables, mental health, and social skills across different institutions, contributing original evidence given the scarcity of Brazilian research on this topic (Maltoni et al., 2019). Given the small sample size and the use of non-parametric tests, the findings are exploratory in nature and should be interpreted with caution. Despite these limitations, this

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study offers valuable insights into the mental health and profile of young university students in Brazil and seeks to contribute to broader international discussions on this developmental stage.

Most participants were young and female, consistent with the profile of Brazilian university students and psychology programs (Conselho Federal de Psicologia [CFP], 2022; INEP, 2022). The predominant marital status was single, with over 80% reporting being single in other studies (Ariño & Bardagi, 2018). Most students also reported not being in a romantic relationship. Although few studies specifically address romantic relationships among university students, this is an important aspect of academic life (Sheldon et al., 2021). Therefore, mental health interventions should consider the relevance of romantic relationships and social and emotional support these relationships can provide or require.

Braun et al. (2024) demonstrated that social and family support, skills for coping with discrimination, and resilience are associated with more adaptive coping among university students and are related to Social Skills (SS) and mental health. These findings help to delineate students' profiles and vulnerabilities and may guide institutional programs aimed at strengthening coping strategies. Furthermore, by promoting socioemotional competencies such as Social Skills, higher education institutions can not only enhance students' mental health but also foster their career adaptability in an increasingly unstable and competitive labor market (Lekshmy et al., 2025).

Regarding paid employment, a significant difference was found between institutions: more than half of the students in private institutions were employed, while nearly all students in public institutions were not. These findings are consistent with the *Mapa do Ensino Superior no Brasil* (Map of Higher Education in Brazil; SEMESP, 2024), which reported that 61.8% of university students in private institutions were employed, while 59.7% in public institutions were not engaged in paid work. This distinction highlights the precarious labor conditions faced by many young Brazilians, who must balance academic responsibilities with financial subsistence. The need to work may impose additional pressure and negatively affect academic performance and mental health.

Program duration differs between institutions: private institutions offer part-time (evening) classes, whereas public institutions offer full-time programs, which may facilitate participation in extracurricular activities that protect mental health (Hunsu et al., 2023). The literature (Soares et al., 2009; Zhang & Yang, 2020) confirms that the program duration influences the proportion of working students and the time available for study; private higher education institutions tend to attract working students who enroll in evening programs, whereas public higher education institutions primarily enroll full-time students. Therefore, it is crucial that private higher education institutions develop support policies and targeted institutional programs for working students, offering guidance on time management, effective study strategies, and psychological support to cope with the stress of balancing multiple commitments.

Most students from private institutions lived with their families, whereas students from public institutions were almost equally divided between living with family and with friends (e.g., in student residences). This pattern is associated with student profiles: private institutions tend to enroll local students, while public institutions attract students from more distant cities or states (Cardoso et al., 2022). These differences in geographic origin and

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housing arrangements are closely linked to variations in socioeconomic support and to the ways in which regional inequalities in the country influence access to and retention in higher education. Student assistance programs should take these contextual factors into account in order to provide adequate support to students across both institutional contexts.

Regarding mental health, the study identified higher levels of anxiety and depression symptoms, as well as clinical indicators of depression, among students from private higher education institutions and among women. The literature corroborates that the prevalence of common mental disorders (CMDs) among university students is higher than in the general population, both in Brazil (Bolsoni-Silva & Loureiro, 2015; Demenech et al., 2021; Maltoni et al., 2019) and globally (Akhtar et al., 2020; Islam et al., 2022; Mason et al., 2025). It is important to recognize that this high prevalence of mental disorders among university students in Brazil reflects a broader global pattern, often intensified by periods of uncertainty and socioeconomic challenges, underscoring the urgent need for effective interventions.

The association between being female and symptoms of anxiety and depression is widely documented. Genetic, neurodevelopmental, and neurobiological factors have been suggested as contributing factors, including differences in brain function and the role of female hormones (e.g., estrogen and progesterone) in the neurobiology of anxiety (Jalnapurkar et al., 2018) and depression (Mohammadi et al., 2023).

In addition to reporting more frequent mental health problems, women also presented a lower repertoire of coping and self-disclosure skills. A study with Brazilian university students (Marques et al., 2026) supports the association between being female and a lower repertoire of social skills, interpersonal difficulties, and mental health problems. The review by Graner and Cerqueira (2019) further reinforces this relationship, identifying female sex, relational difficulties, and coping style as variables associated with psychological distress. Considering the specific vulnerability of women, the development of targeted institutional

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programs and policies to support women's mental health in universities is recommended, addressing identified gender-related issues and focusing on strengthening coping repertoires.

HEIs should support students in overcoming cognitive and emotional difficulties by providing academic, interpersonal, and social support. Soares et al. (2009) identified higher levels of exam anxiety among incoming students at private HEIs, associating this finding with limited study time, whereas students at public institutions were less anxious and demonstrated better adaptation and perceived competence. These findings underscore the need for public policies within primary and secondary education systems focused on developing study skills and socioemotional preparation in order to mitigate anxiety related to examinations and the transition to higher education.

Perceived competence is a protective factor for mental health (Ariño & Bardagi, 2018). Students with better study skills tend to cope more adaptively with the demands of undergraduate education. The higher competition (35.2 applicants per available seat in 2020) (Quinelato, 2019) at the public higher education institution included in this study may have contributed to the development and refinement of such skills, thereby functioning as a protective factor. In contrast, the lower level of competition characteristic of the private institution's admission process may be associated with greater variability in prior academic preparation, possibly explaining the higher levels of anxiety and the need to further develop skills to meet the program's demands. A lack of study skills has been associated with examination anxiety, indicating the importance of targeted training (Sahão & Kienen, 2021). These findings reflect broader educational inequalities in Brazil, where disparities in primary and secondary education systems result in heterogeneous academic preparation, directly influencing the development of essential skills for success in higher education and potentially affecting students' mental health and academic adaptation during the transition to university.

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The availability of opportunities for peer interaction is another factor contributing to differences in anxiety levels. Extracurricular activities, which are more common in public HEIs (e.g., academic leagues, community engagement programs, and undergraduate research programs), provide greater opportunities for contact with peers and faculty and may thus serve as protective factors for mental health (Hunsu et al., 2023). Beyond acknowledging their value, institutional policies in public HEIs should continue to strengthen and expand these spaces, recognizing them as key components in promoting mental health and the holistic development of students.

Clinical groups with anxiety and depression tend to present lower levels of social skills (Bolsoni-Silva & Loureiro, 2016), corroborating the associations identified in this study between mental health problems and social skills (SS). The SS repertoire and the Weaknesses factor were significant predictors of mental health status. Women exhibited higher levels of anxiety, more mental health problems, and lower performance in SS factors, findings that are consistent with the literature (Campos et al., 2018; Gao et al., 2020; Graner & Cerqueira, 2019). These results reinforce the urgency of social and educational policies that explicitly promote the development of SS and resilience from primary education onward, not only to improve mental health but also to prepare young people for career adaptability in contexts marked by economic and social uncertainty.

The findings reinforce the importance of institutional mental health policies in higher education. At the global level, the World Health Organization's World Mental Health International College Student Initiative (WMH-ICS) stands out as an important initiative aimed at characterizing and addressing mental health problems in this population (Harvard Medical School, 2023). The Brazilian data obtained in this study may contribute to the global understanding of mental health problems among university students and to the development of international intervention strategies, situating regional particularities within broader,

globally shared challenges. In Brazil, the National Assistance Program (PNAES; Law No. 14.914, 2024), through the Student Assistance Program (PAS), formally recognizes the role of mental health in student retention (Januario et al., 2024).

This study identified both similarities and differences between students from private and public HEIs. Although restricted to a single program in one city, the findings contribute to the planning of targeted interventions and should be interpreted as exploratory, indicating associations between mental health, social skills, and sociodemographic variables. Longitudinal studies are recommended to examine the persistence of these differences over time, and multicenter studies with larger samples are needed to account for regional specificities, increase statistical power, and enhance generalizability, thereby addressing limitations related to sample size and non-parametric analyses. Overall, by detailing the particularities and vulnerabilities of young people entering psychology programs in Brazil, this investigation supports the development of more targeted public policies in both the educational and social spheres, aiming to promote not only mental health but also young people's career adaptability in an increasingly dynamic and uncertain context.

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Research Data Availability

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The datasets generated and/or analyzed during the present study are available from the corresponding author upon reasonable request.

Conflict of interest

The authors have no conflicts of interest to declare.

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