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Coping strategies and their sociodemographic correlates: an analysis of Ecuadorian university student behavior

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Introduction: University life presents numerous challenges that can affect students' emotional well-being and academic performance. Understanding how students cope with these challenges is essential for developing effective support strategies.

Methods: This study employed a quantitative approach with a cross-sectional descriptive-correlational design. A total of 464 university students from various academic disciplines at a higher education institution in Azogues, Ecuador, participated. Coping strategies were assessed using the Brief COPE inventory, and sociodemographic data were collected through an online form. Data analysis was conducted using SPSS software.

Results: Female students most frequently used emotional support, instrumental support, and religion as coping strategies. In contrast, male students tended to rely more on substance use and positive reinterpretation. Statistically significant differences were also observed in the use of humor and according to academic level.

Discussion: These findings underscore the relevance of sociodemographic factors in shaping coping strategies among university students. The study provides a foundation for targeted interventions that promote adaptive coping and enhance student well-being in higher education contexts.

KEYWORDS

coping strategies, sociodemographic variables, university students, mental health, cultural context

1 Introduction

Transition to university life represents a period of substantial academic, economic, and psychosocial demands that directly affect students' emotional wellbeing and academic performance (Cage et al., 2021). During this phase, heightened coursework requirements, financial constraints, adaptation to an unfamiliar social milieu, and the need to balance study with employment can intensify stress levels (Vasileiou et al., 2019; Rodríguez-Fernández et al., 2020). Separation from prior family and social networks further compels individuals to mobilize considerable physical and psychological resources at a critical juncture of adjustment (Alsubaie et al., 2019). These university-specific factors precipitate stress, mental-health problems, and interpersonal difficulties (Urbina-Garcia, 2020); consequently, fostering successful adaptation is essential to safeguard both academic achievement and holistic health throughout university studies (Bedoya Cardona, 2021).

Recent literature on academic stress shows that deploying suitable coping strategies can lower stress levels, enhance emotional wellbeing, and avert adverse outcomes

(Fitzgibbon and Murphy, 2023). Moreover, flexible use of multiple strategies bolsters students' cognitive and emotional adjustment (Freire et al., 2020). When such strategies are limited, however, university students often resort to external resources, notably alcohol or other substances (Böke et al., 2019).

Within this framework, coping strategies are conceptualized as dynamic cognitive-behavioral processes designed to attenuate, reinterpret, or neutralize perceived stressors (Sinnott et al., 2022). Selecting a particular strategy may dampen or heighten the negative emotions elicited by a stressful situation and, in some cases, eradicate stress effects altogether (Morales Rodríguez, 2020). Nonetheless, no coping strategy is inherently superior or inferior; effectiveness remains context-dependent, as what benefits certain individuals under specific circumstances may prove counterproductive for others (Jimeno and López, 2019).

Fischer et al. (2021) showed that the effectiveness of any coping strategy hinges on the context in which it is deployed. Adaptive strategies are consistently associated with higher subjective wellbeing, whereas maladaptive ones predict greater psychopathological symptomatology and lower perceived wellbeing. In line with this evidence, Kamaludin et al. (2020) and Moreno-Montero et al. (2024) characterize adaptive strategies as those grounded in active coping, problem-solving, and help-seeking, all of which aim to reduce stress and enhance both psychological wellbeing and overall health outcomes. Conversely, Tran and Lumley (2019) and Lankan et al. (2023) report that avoidance, self-blame, and substance use constitute maladaptive responses; these behaviors are not only linked to elevated distress but are also especially prevalent among young adults, thereby contributing to the chronicity of depressive symptoms.

Scholarship has also examined how sociodemographic variables modulate coping choices. Multiple investigations confirm that gender, family structure, employment status, and an urban-rural background shape ways of managing everyday stressors (Gupta et al., 2023). Shukla and Shukla (2023) identified significant gender differences in the use of humor, emotional support, catharsis, and religious coping. Similarly, Babicka-Wirkus et al. (2021) reported that age, gender, and place of residence determine preference for particular tactics. Selected strategies, moreover, exert a direct impact on both academic performance and psychological wellbeing (Gustems-Carnicer et al., 2019).

Beyond demographic profile, academic discipline also exerts a differential influence. Santiago and Pinto (2021) reported that medical students show greater vulnerability to stress and depressive symptoms than peers in other programmes, relying more frequently on emotional support, positive reinterpretation, acceptance, distraction, and substance use. Complementary evidence from Jiboc (2022) indicates that planning and positive reappraisal not only regulate emotional responses but also correlate with superior performance in specific academic skills such as reading comprehension although no discipline-specific associations were observed. Finally, Marakshina et al. (2024) emphasize that coping effectiveness hinges on multiple variables, including perceived stress levels, mental toughness, emotional problems, and demographic traits. Taken together, these studies suggest that the deployment of coping strategies depends not only on the nature of the stressor but also on individual appraisal and the broader sociocultural context (Fischer et al., 2021).

Ecuadorian university life unfolds within a markedly heterogeneous sociocultural landscape: many students come from low- to middle-income households, juggle coursework with informal employment, and frequently migrate from rural areas to major urban campuses (Velastegui-Hernández et al., 2024). Limited reconciliation of academic, work, and family roles, compounded by rigid timetables, scant curricular flexibility, inadequate financial resources, and insufficient institutional support, undermines academic trajectories (Silva-Martínez et al., 2023). These conditions heighten academic stress and prompt students to deploy diverse coping strategies, whose selection is influenced by factors such as gender, age, socioeconomic status, and religious affiliation (Torres et al., 2017). Although Ecuadorian higher education has undergone substantial transformations over the past decade—spanning policy reforms, accreditation processes, and quality-enhancement initiatives (Hoof et al., 2013; Guerrero-Quiñonez et al., 2023)—academic stress and mental health problems remain critical challenges, closely tied to systemic features of the educational landscape and limitations within the national mental health infrastructure (Fomina et al., 2024).

In this context, it is essential to acknowledge that no coping strategy is inherently superior or inferior; their effectiveness depends on individual and situational factors. What benefits certain individuals under specific circumstances may prove counterproductive for others (Morales Rodríguez, 2020; Jimeno and López, 2019).

1.1 Rationale

While coping strategies have been extensively studied in diverse populations, there is a critical need to understand their contextual application in Ecuadorian university settings. Prior research has demonstrated that sociodemographic variables such as gender, family structure, employment, and urban residence can influence coping strategies (Gupta et al., 2023). However, these associations are not universal and may vary depending on cultural and social contexts, making it essential to examine coping from a local perspective.

Ecuadorian higher education presents particular characteristics that necessitate dedicated analysis. Over the past decade, the system has undergone significant transformations, including reforms in educational policy, accreditation procedures, and improvements in academic quality (Hoof et al., 2013). Regulatory bodies such as the Consejo de Aseguramiento de la Calidad de la Educación Superior (ACCESS) and the Sistema Nacional de Educación Superior (SNES) were established to ensure supervision and program relevance (Guerrero-Quiñonez et al., 2023). Universities have also begun aligning their offerings with labor market demands (Velastegui-Hernández et al., 2024). Despite these advances, challenges such as academic stress and mental health issues persist among student populations.

Academic stress is closely linked to educational system conditions and the nation's mental health environment (Fomina et al., 2024). Although mental health issues among university students have garnered growing attention in international literature, in Ecuador a gap persists in studies addressing coping strategies employed by students in local contexts. Existing

evidence suggests significant associations between mental health and variables including sex, area of study, self-esteem, social support, personality traits, or clinical background (Torres et al., 2017). Moreover, cultural aspects often receive insufficient attention; Ecuadorian educators acknowledge cultural diversity, their pedagogical training seldom emphasizes the necessity of considering cultural and sociodemographic influences within teaching and learning processes (Burgin and Daniel, 2020).

Based on this panorama, a lack of studies systematically integrating a wide range of sociodemographic variables in relation to coping strategies—particularly within Ecuadorian contexts—is observable. This gap underscores the relevance of the present study, whose objective is to analyze coping strategies employed by university students in Ecuador, taking into account their sociodemographic profile. By contextualizing coping within local academic and cultural environments, research aims to contribute pertinent empirical evidence that serves as a foundation for designing culturally sensitive interventions, oriented toward strengthening psychological wellbeing in university settings and promoting a comprehensive educational approach that interlinks academic development with students' emotional adjustment.

1.2 Objectives and hypotheses

The objective of this study is to analyze coping strategies and their associations with sociodemographic variables among Ecuadorian university students. By situating coping within Ecuador's distinctive academic and cultural context, this research seeks to generate empirical evidence to inform culturally sensitive interventions that enhance psychological wellbeing and promote a comprehensive approach to academic and emotional development. The methodology employed can also be applied to other university populations in Ecuador, allowing for comparisons of coping patterns and guiding the design of population-specific interventions.

It is hypothesized that female students will report a greater use of emotional regulation strategies, while male students will prioritize problem-solving methods. Furthermore, sociodemographic factors such as age, religious affiliation, employment status, and academic characteristics are expected to significantly influence the selection of coping strategies. The findings will provide empirical evidence to confirm or challenge these patterns, contributing to a nuanced and contextually grounded understanding of coping mechanisms in this population.

1.3 Related works

Due to the diverse approaches in studying coping strategies and their relationship with sociodemographic variables among university students, several authors have emphasized the need for periodic literature reviews. These reviews are presented chronologically, detailing the sociodemographic variables addressed.

Regarding research related to gender, Dyson and Renk (2006) indicate that differences between men and women influence coping

strategies during the first year of university. Their study found that women tend to use emotional strategies, whereas men prefer problem-solving approaches. Subsequently, Morejón Uchubanda (2019) discovered that men are inclined to employ problem-focused strategies, while women favor positive reappraisal.

Adasi et al. (2020) found that women were more likely to use positive coping strategies compared to men, who showed a preference for less adaptive and avoidance-oriented strategies. In the same year, Vetrov and Cedeño (2020) examined the relationship between resilience and coping strategies. Their findings revealed that women scored higher in problem-solving, emotional expression, social support, and cognitive restructuring. Conversely, men scored higher in self-criticism, wishful thinking, problem avoidance, and social withdrawal. Additionally, it was observed that older participants (35–44 years) tended to employ more adaptive strategies, while younger individuals (18–24 years) used more maladaptive strategies.

On the other hand, Neufeld and Malin (2021) found that gender and year of study affect coping strategies, with women using behavioral disengagement more frequently and men relying more on instrumental and emotional support. Additionally, it was observed that denial was more common in the third year of study and less frequent in the fourth year.

Babicka-Wirkus et al. (2021) emphasized the importance of gender and age in the selection of coping strategies, finding that women are more likely to use seeking support while men tend to use humor. Regarding age, older students (21–30 years) more frequently employ active coping and planning strategies compared to younger students (18–20 years). In the same year, Graves et al. (2021) reported that women are more likely to utilize distractions, emotional support, instrumental support, and venting compared to men.

Additionally, the research conducted by Ahmad and Jafree (2023) found a significant association between gender and religious-spiritual coping, with women employing these strategies more frequently than men. Similarly, Mustafa et al. (2023) discovered that students use cognitive, behavioral, and emotional coping strategies, with cognitive strategies being the most commonly utilized. A notable finding from this research is the gender difference, as male students tend to prefer behavioral approaches and more frequently seek help compared to their female counterparts.

Regarding age, previous investigations have not reported evidence of its influence on coping strategies. Nonetheless, Al Najjar et al. (2017) examined how students manage stress and observed that diverse coping mechanisms were employed irrespective of gender, age, academic course, or marital status. Two years later, Chirinos Gutiérrez (2020) conducted a study on coping strategies relative to sociodemographic variables and found no statistically significant differences associated with gender, academic level, or age.

However, studies such as Yusoff et al. (2019) indicate that married postgraduate students simultaneously face academic and familial challenges, which affect both their marital relationship and academic performance. Although the study suggests that employing adaptive coping strategies may mitigate the negative effects of stress on marital quality, it does not identify specific

associations between particular coping strategies and marital status. Including marital status as a sociodemographic variable is relevant, as several studies have shown that married individuals generally possess greater resources for managing stress, primarily due to increased social and emotional support, which may help reduce depression and enhance quality of life (Hsu and Barrett, 2020). In contrast, marital separation or dissolution may lead to the adoption of maladaptive coping strategies, such as alcohol or tobacco use, with variations depending on gender, educational attainment, and parental status (Tilstra and Kapelle, 2025). Furthermore, coping styles are shaped by personal resources and family environment characteristics, both of which influence the selection and effectiveness of individual responses to stress (Orlova, 2020). Nevertheless, further theoretical and empirical research is needed in this area—particularly within university contexts—to better understand how marital status may be associated with coping strategies.

Similarly, Maba and Hatta (2022) analyzed the relationship between various demographic factors (gender, age, area of residence, number of siblings, monthly expenses, part-time work, and living conditions) and coping strategies. Their results revealed a significant correlation between having a part-time job and problem-focused and emotion-focused coping strategies. But, no significant correlation was observed between coping strategies and other demographic factors such as gender, age, area of residence, number of siblings, monthly expenses, and living conditions.

Liu (2024) indicates that university students' employment status is closely linked to their coping strategies, particularly in contexts characterized by high pressure and anxiety related to work environments. Economic and social factors, such as financial crises, pandemics, and high unemployment rates, directly influence how students manage academic and professional stress (Bozgeyikli et al., 2023). Inadequate handling of these demands can seriously compromise their wellbeing, leading to adverse effects on both mental and physical health, including insomnia, anxiety, and depressive symptoms (Gao and Wang, 2023). However, it is important to emphasize that employment status alone does not determine difficulties in making career decisions. Other relevant variables, such as gender, age, income level, and socioeconomic status, also significantly shape how students cope with work-related stress (Yaghi and Alabed, 2021).

Other studies have examined how career choice influences coping strategies among university students. For instance, Rodríguez-Fernández et al. (2020) revealed that seeking support is predominant in careers such as Nutrition and Nursing, while planning is more valued in Occupational Therapy and Kinesiology. Similarly, Freire et al. (2020) highlighted the importance of coping strategies in preventing adverse effects on mental health. They concluded that a combination of positive reevaluation, seeking support, and strategic planning is associated with high self-efficacy expectations among students, with no significant differences observed based on the chosen career.

According to Condoyque-Méndez et al. (2016), family income levels influence stress and coping strategies among students in Nursing and Nutrition. The study identified that students with incomes between \$0 and \$500 experienced significantly higher levels of stress compared to those with incomes ranging from

\$1,000 to \$1,500. Furthermore, it was noted that in Nursing, planning strategies to manage concerns predominates, while in Nutrition, active information-seeking is common.

Regarding religious affiliation, Chai et al. (2012) revealed that Asian students employ more religious coping strategies compared to their European counterparts. Additionally, Krägeloh et al. (2012) emphasize that higher levels of religiosity and spirituality are associated with problem-focused coping strategies, whereas lower levels are related to avoidant or maladaptive strategies. Furthermore, Faradila et al. (2023) suggest that religion can serve as an effective coping mechanism to reduce stress among students, highlighting a significant connection between religious coping strategies and resilience. This underscores that religious coping is not only linked with resilience but may also influence the overall coping strategies adopted by students.

On the other hand, regarding family dynamics, highlights that family structure is crucial for students' coping strategies in response to stress. In another related study, Vasileiou et al. (2019) examined how young adults manage loneliness during their university studies. The most common coping strategies identified by this population include distraction, seeking support, social isolation, self-sufficiency, and problem-solving. However, the specific impact of one's role within the family or the position of children in these strategies has not yet been investigated.

Finally, another reviewed variable is parenting styles. According to Bishop et al. (2019), parenting styles influence coping strategies. Their study found that students raised by authoritarian and permissive parents tend to experience less nostalgia and employ more effective strategies, such as seeking support and problem-solving. Additionally, Hama (2023) investigated the relationship between parenting styles and coping mechanisms, highlighting that passive mechanisms are common among students raised under an authoritarian style. In the same context, Oktaviani et al. (2023) explored how parenting style, social support, and peer relationships influence coping strategies. Their findings indicated that these variables significantly improve students' coping strategies, increasing their problem-solving adaptability by 34.7%.

2 Methods

The methodology of this research is framed within a quantitative approach. This approach is characterized by the collection and analysis of numerical and statistical data to test hypotheses and theories, emphasizing objectivity in research (Hernández-Sampieri and Mendoza, 2020). Additionally, this study is descriptive and correlational in nature, as it focuses on describing the most common coping strategies among university students and associating the relationship between sociodemographic variables.

2.1 Participants

This research employs a probabilistic sample, where all individuals have an equal chance of being selected. To determine the sample size, the STATS® program was used, considering a 9%

margin of error and a 99% confidence level. Although the initial calculation suggested a sample size of 295 individuals, the study included 464 students to enhance the precision of the estimates.

Participants are distributed from the first to the fifth semester and are enrolled in the following programs: Accounting ($n = 135$), Automotive Mechanics ($n = 98$), Electricity ($n = 76$), Agricultural Production ($n = 66$), Fire Control ($n = 8$), Software Development ($n = 45$), and Construction and Civil Works ($n = 36$). This distribution allows for more accurate estimates of the parameters of the studied population.

2.2 Instrument

2.2.1 Multidimensional coping assessment scale BRIEF-COPE/28

The Brief-COPE/28 is a psychometric assessment tool designed to evaluate coping strategies in adult populations. It consists of 28 items distributed across 14 subscales, each containing two items. Response options are rated based on the frequency of application. This instrument was developed by [Morán et al. \(2010\)](#) and has been validated for various research and clinical studies ([Solberg et al., 2022](#)). In this line, the Spanish adaptation of the Brief-COPE/28 inventory has shown adequate psychometric indices ($\alpha = 0.75$) and a satisfactory fit for a 14-factor model, which makes it a valuable tool for assessing coping strategies in a Spanish-speaking university population ([Fernández-Martin et al., 2022](#)).

2.3 Procedure

Data collection was conducted through an online questionnaire administered via Google Forms, designed to collect sociodemographic information and assess coping strategies using the Brief COPE/28 inventory. The questionnaire included variables such as age, sex, marital status, academic discipline, academic level, socioeconomic status, number of children in the household, family role, parenting style, and religious affiliation. These variables were selected based on a comprehensive review of the literature and were collected without the application of additional tests.

Informed consent was obtained electronically at the beginning of the questionnaire, outlining the study's objectives, the voluntary nature of participation, and the measures adopted to ensure data confidentiality and privacy. Invitations to participate were extended in classrooms, where students scanned a QR code to access the questionnaire. Responses were automatically stored in an Excel database and subsequently imported into SPSS for statistical analysis.

This study did not require formal approval from an ethics committee. However, adherence to the ethical principles outlined in the International Ethical Guidelines for Health-Related Research Involving Humans (CIOMS) was maintained. Participation was entirely voluntary, with informed consent provided prior to completion, ensuring privacy, confidentiality, and participants' wellbeing throughout the research process. These measures

ensured compliance with the international ethical standards applicable to this type of scientific research.

2.4 Data analysis and design

A quantitative, non-experimental design was adopted for this study. [Mohajan \(2020\)](#) defines a non-experimental study as one in which no deliberate manipulation of variables is performed; rather, variables are observed and measured as they naturally occur in the students' environment. The design is cross-sectional, focusing on the description of variables at a specific point in time. This implies that coping strategies for stress among university students were examined without external interventions, observing them as they naturally occur. Furthermore, the design is descriptive-correlational, aiming to describe the most common coping strategies among university students and examine associations with sociodemographic variables (e.g., age, gender, socioeconomic status, marital status, academic cycle, academic discipline, parenting style).

Data analysis was conducted using Statistical Package for the Social Sciences (SPSS) ([Wagner III, 2019](#)) and included both descriptive and inferential statistics, providing a comprehensive overview of the sample's characteristics and patterns. Descriptive analyses computed means and standard deviations for various coping strategies, stratified by categorical variables such as gender, age, field of study, academic semester, marital status, employment situation, income level, birth order, family role, religious affiliation, parenting style, and current living situation.

Inferential analyses applied Kruskal–Wallis and Mann–Whitney U -tests to identify significant differences between groups. Tables and graphs were generated to facilitate interpretation and presentation of results, ensuring that the collected data were structured and suitable for the required analyses. This comprehensive approach provided a robust foundation for exploring relationships between sociodemographic variables and coping strategies.

3 Results

Statistical analyses conducted enabled identification of differential patterns in coping strategy usage among university students, contingent upon various sociodemographic variables. In this context, [Table 1](#) presents the characterization of the sociodemographic variables of the student population.

The sample of this study consists of 464 students aged between 17 and 48 years (mean = 23.52 years, SD = 6.19 years), with 34.7% ($n = 161$) being women and 65.3% ($n = 303$) being men. Most students are in their second cycle (35.8%, $n = 166$) or fourth cycle (29.7%, $n = 138$). A total of 79.5% ($n = 369$) identify as single. Economic income primarily ranges between <230 dollars (23.7%, $n = 110$) and between 230 dollars and 460 dollars (26.1%, $n = 121$). Most students are the first child in their family (37.9%, $n = 176$), live with their mother (63.1%, $n = 293$), and identify as Catholic (87.9%, $n = 408$). Regarding parenting style, 39.9% ($n = 185$) describe having been raised under an authoritarian style.

TABLE 1 Sociodemographic characteristics.

Variable	Category	Number	Percentage
Gender	Female	161	34.7%
	Male	303	65.3%
Career	Civil construction	36	7.8%
	Accounting	135	29.1%
	Software development	45	9.7%
	Electricity	76	16.4%
	Automotive mechanics	98	21.1%
	Animal production	66	14.2%
	Fire control and rescue operations	8	1.7%
	Academic semester	First semester	91
	Second semester	166	35.8%
	Third semester	37	8%
	Fourth semester	138	29.7%
	Fifth semester	32	6.9%
Marital status	Married	60	12.9%
	Divorced	12	2.6%
	Single	369	79.5%
	Common-law Union	18	3.9%
	Widowed	2	0.4%
	Other	3	0.6%
Employment	No	225	48.5%
	Yes	239	51.5%
Economic income	No income	49	10.6%
	Less than 230	110	23.7%
	230–460	146	31.5%
	460–690	95	20.5%
	690–920	33	7.1%
	920–1,150	21	4.5%
	1,150–1,380	9	1.9%
	1,610 or more	1	0.2%
Number of children	Only child	10	2.2%
	First child	176	37.9%
	Second child	128	27.6%
	Third child	62	13.4%
	Fourth child	30	6.5%
	Fifth child	21	4.5%
	Sixth child	18	3.9%
	Seventh child	9	1.9%
	Eighth child	5	1.1%
	Ninth child	2	0.4%
	Tenth child	3	0.6%

(Continued)

TABLE 1 (Continued)

Variable	Category	Number	Percentage
Role in household	Child	380	81.9%
	Mother	43	9.3%
	Father	41	8.8%
Religious affiliation	No	111	23.9%
	Yes	353	76.1%
Religion	Agnostic	1	0.2%
	Atheist	24	5.2%
	Catholic	408	87.9%
	Christian	4	0.9%
	Evangelical	18	3.9%
	Jehovah's witness	6	1.3%
	None	3	0.6%
Parenting style	Authoritarian	185	39.9%
	Democratic	151	32.5%
	Negligent	14	3%
	Permissive	114	24.6%
Living arrangement	Grandparents	54	11.6%
	Uncles/aunts	28	6%
	Siblings	236	50.9%
	Mother	293	63.1%
	Father	184	39.7%
	Alone	29	6.3%
	Others	105	22.6%

On the other hand, the analysis of coping strategies using the BRIEF-COPE/28 reveals a diverse range of mechanisms employed by participants. Proactive strategies, such as active coping (mean = 2.05, SD = 0.69) and acceptance (mean = 2.01, SD = 0.63), stand out as the most commonly used, reflecting a tendency toward direct confrontation of problems and adaptation to reality. There is also considerable use of planning (mean = 1.83, SD = 0.68), indicating that many participants prefer to structure their responses to stressful situations. In contrast, substance use (mean = 0.46, SD = 0.70) is notably the least frequent method, followed by denial (mean = 1.17, SD = 0.80), indicating a low tendency to ignore or reject reality.

Humor (mean = 1.51, SD = 0.84) and positive reinterpretation (mean = 1.70, SD = 0.72) are used moderately, suggesting that participants turn to strategies that aim to alleviate stress with a more optimistic perspective or through laughter. Self-blame (mean = 1.57, SD = 0.81) and venting (mean = 1.13, SD = 0.66) reflect a tendency toward self-reproach and the expression of negative emotions, although not predominantly. Finally, emotional support seeking (mean = 1.25, SD = 0.77) and behavioral disengagement (mean = 1.02, SD = 0.69) are used less frequently, indicating that participants tend to avoid emotional distancing or disengagement from their problems, while

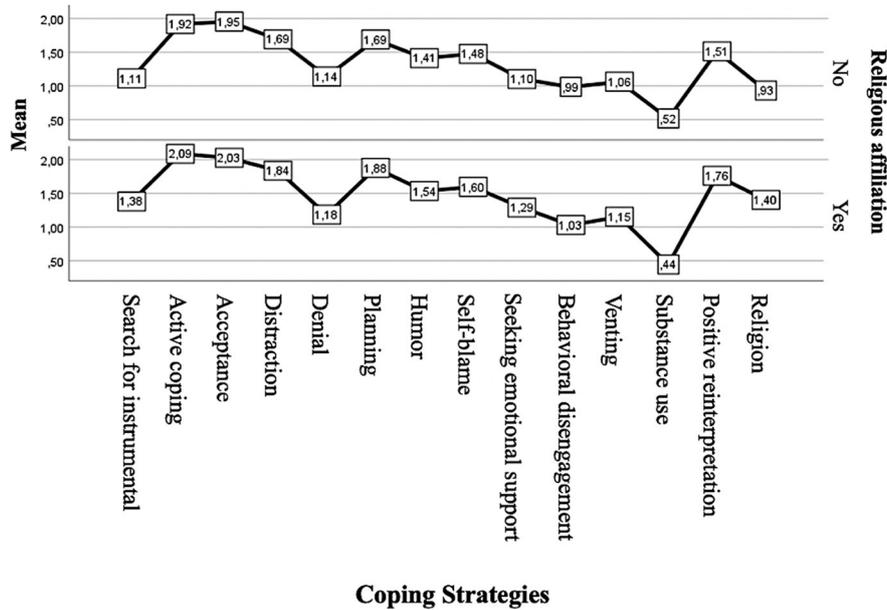


FIGURE 1 Mean coping strategies utilized by university students. The graph shows a remarkable variability in the preference of coping strategies among participants, highlighting both the use of positive mechanisms and the diversity in their selection.

distraction (mean = 1.80, SD = 0.72) is employed moderately to divert the mind from difficult situations. Together, these results outline a profile where action-oriented and acceptance strategies are predominant, with a lesser preference for those involving avoidance or substance use. All this information is depicted in Figure 1.

3.1 Correlation between strategies and sociodemographic variables

Each sociodemographic variable was associated with coping strategies.

3.1.1 Coping strategies according to age

The results of the correlations are shown in Table 2. The analysis of correlations between age and different coping strategies reveals several notable patterns. First, age is positively correlated with active coping ($r = 0.152, p < 0.01$), indicating that older individuals tend to address problems more directly and effectively compared to younger ones. Similarly, planning ($r = 0.195, p < 0.01$) also increases with age, suggesting that older adults are more likely to structure their responses to stressful situations, which may be related to greater experience and foresight.

Religion shows a significant positive correlation with age ($r = 0.187, p < 0.01$), suggesting that as individuals grow older, they are more likely to turn to religious or spiritual practices as a coping mechanism. This finding may reflect an increased search for meaning or spiritual comfort in later life.

TABLE 2 Spearman’s Rho correlation coefficient for age and coping strategies.

Coping strategies	Age
Search for instrumental support	-0.011
Active coping	0.152**
Acceptance	0.075
Distraction	0.000
Denial	0.010
Planning	0.195**
Humor	-0.040
Self-blame	-0.061
Seeking emotional support	0.004
Behavioral disengagement	-0.074
Venting	0.028
Substance use	0.071
Positive reinterpretation	0.091*
Religion	0.187**

* $p < 0.05$, ** $p < 0.001$. These values highlight statistically significant correlations between the analyzed variables.

On the other hand, no significant correlations were found between age and strategies such as instrumental support ($r = -0.011$), acceptance ($r = 0.075$), distraction ($r = 0.000$), and denial ($r = 0.010$), suggesting that these strategies are used consistently across different ages. Behavioral disengagement ($r = -0.074$) and venting ($r = 0.028$) also showed no significant correlations with

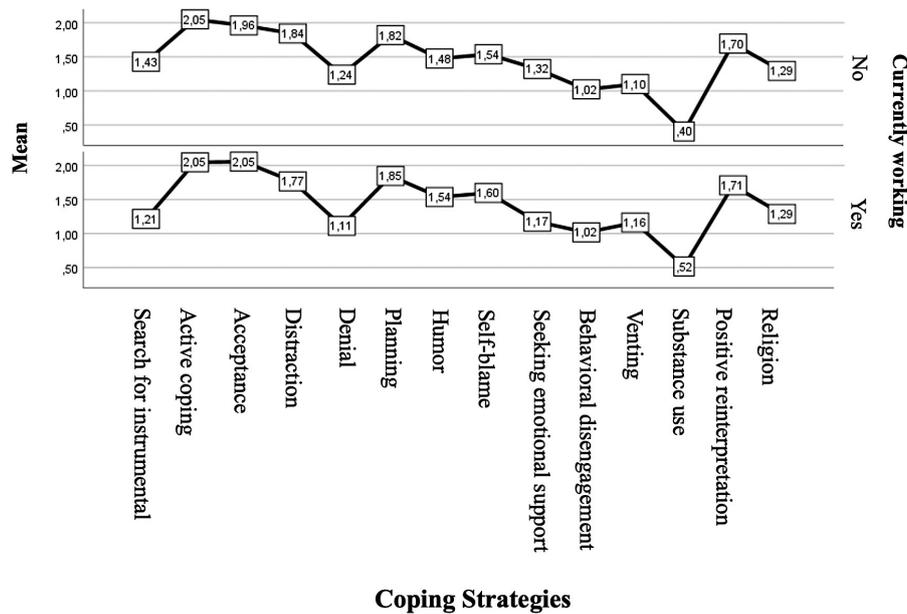


FIGURE 2

Comparison of coping strategy usage between male and female participants. Female participants (top graph) and male participants (bottom graph) are represented by distinct lines, illustrating the gender differences in the utilization of each coping strategy.

age, indicating a lack of clear relationship between these strategies and aging.

3.1.2 Coping strategies according to gender

Figure 2 illustrates the gender differences in the use of coping strategies. The Mann–Whitney test was employed, revealing several significant patterns. Notably, women exhibit a greater tendency to utilize instrumental support ($U = 19,246.5$, $Z = -3.814$, $p < 0.001$) and active coping ($U = 21,315.5$, $Z = -2.311$, $p = 0.021$) compared to men. This suggests that women are more likely to seek practical assistance and engage in direct actions when dealing with stressful situations.

Additionally, women also tend to seek more emotional support ($U = 18,678.5$, $Z = -4.242$, $p < 0.001$) and resort to religion ($U = 18,402.0$, $Z = -4.424$, $p < 0.001$) as coping mechanisms compared to men. These differences reflect a higher inclination among women to turn to emotional comfort and understanding from others, as well as to religious or spiritual practices as ways to manage stress.

Conversely, men show a greater tendency to use substances ($U = 21,001.0$, $Z = -2.809$, $p = 0.005$) and to engage in positive reinterpretation ($U = 20,716.5$, $Z = -2.756$, $p = 0.006$) compared to women. This may indicate that men are more inclined to resort to substances for temporary relief from stress and to reinterpret situations in ways that seem less negative.

In other aspects, such as acceptance, distraction, denial, planning, humor, self-blame, behavioral disengagement, and venting, no significant gender differences were observed ($p >$

0.05). This suggests that these coping strategies are used relatively similarly by both genders.

3.1.3 Coping strategies to university career

In Table 3, the analysis of coping strategies by major, using the Kruskal–Wallis test, reveals several significant differences. Humor shows the greatest variance across majors ($H = 38.502$, $p < 0.001$), indicating that the tendency to use humor as a coping strategy varies considerably among students from different disciplines. This may reflect the diverse nature of academic fields and how students in each area deal with stress and challenges.

Negation ($H = 24.296$, $p = 0.012$) and planning ($H = 24.551$, $p = 0.011$) also display significant differences. This suggests that the inclination to deny problems and the tendency to plan responses vary depending on the academic program, possibly influenced by the academic training and specific demands of each field of study. For instance, students in Advanced Software Development Technology (mean of 1.3333 in planning) appear to utilize planning less frequently compared to those in Accounting (mean = 1.9877).

In terms of seeking emotional support ($H = 21.427$, $p = 0.029$), the differences are significant. Accounting students (mean = 1.5984) tend to seek emotional support more frequently compared to other programs, such as Automotive Mechanics (mean = 1.0588), which could reflect variations in the support culture within each academic field.

Religion ($H = 27.751$, $p = 0.004$) shows significant differences, with Livestock Production students (mean = 1.3143) employing this strategy more frequently than those in Software Development (mean = 1.0128). This could be associated with cultural differences

TABLE 3 Coping strategies according to career.

Career	Statistic	Search for instrumental support	Active coping	Acceptance	Distraction	Denial	Planning	Humor	Self-blame	Seeking emotional support	Behavioral disengagement	Venting	Substance use	Positive reinterpretation	Religion
Construction and civil works	Mean	1.32	1.98	2.01	1.74	0.97	1.92	1.55	1.62	1.37	1.14	1.26	0.59	1.81	1.62
	SD	0.65	0.61	0.61	0.71	0.81	0.62	0.72	0.75	0.68	0.69	0.7	0.83	0.67	0.86
Accounting	Mean	1.33	2.08	2.05	1.79	1.07	1.83	1.9	1.68	1.43	1.13	1.15	0.38	1.72	1.06
	SD	0.97	1.3	1.37	1.25	0.83	1.16	1.67	1.29	1.09	0.96	0.86	0.52	1.2	0.75
Software development	Mean	1.6	1.83	1.84	1.63	1.59	1.9	1.73	1.8	1.18	0.89	0.75	1.32	1.65	0.51
	SD	0.89	0.73	0.44	0.96	0.8	0.76	0.77	0.59	0.9	0.57	0.7	0.55	0.64	1.08
Electricity	Mean	1.25	2	1.92	1.76	0.99	1.73	1.57	1.43	1.13	1.08	1.1	0.41	1.68	1.16
	SD	0.76	0.71	0.67	0.71	0.75	0.67	0.86	0.84	0.73	0.69	0.64	0.55	0.7	0.75
Automotive mechanic	Mean	1.29	2.04	2.07	1.88	1.22	1.88	1.64	1.63	1.18	0.96	0.99	0.59	1.6	1.3
	SD	0.8	0.68	0.65	0.66	0.81	0.71	0.86	0.84	0.72	0.77	0.55	0.8	0.74	0.94
Livestock production	Mean	1.36	2.09	1.99	1.7	1.31	1.64	1.22	1.33	1.25	0.72	0.94	0.44	1.59	1.35
	SD	0.8	0.82	0.82	0.69	0.82	0.8	0.79	0.77	0.89	0.66	0.51	0.53	0.78	0.9
Total	Mean	1.17	1.57	1.51	1.42	1.06	1.45	1.34	1.31	1.1	0.88	0.9	0.62	1.35	1.08
	SD	0.69	0.69	0.65	0.71	0.69	0.67	0.81	0.72	0.71	0.62	0.57	0.54	0.67	0.75

or the varying inclination toward spirituality among different groups of students.

On the other hand, no significant differences were found in strategies such as seeking instrumental support ($H = 15.951$, $p = 0.143$), acceptance ($H = 9.628$, $p = 0.564$), distraction ($H = 10.428$, $p = 0.492$), behavioral disengagement ($H = 13.477$, $p = 0.263$), venting ($H = 19.318$, $p = 0.056$), substance use ($H = 13.570$, $p = 0.258$), and positive reinterpretation ($H = 12.916$, $p = 0.299$). These strategies appear to be employed similarly by students across different academic programs.

3.1.4 Coping strategies according to job

When comparing coping strategies between working and non-working students, several important observations emerge, as illustrated in Figure 3. Results from the Mann–Whitney test indicate that working students tend to rely more on seeking instrumental support ($U = 22,584.5$, $Z = -3.038$, $p = 0.002$) and emotional support ($U = 23,866.5$, $Z = -2.136$, $p = 0.033$). This suggests that students with work responsibilities are more likely to seek practical and emotional help from others, possibly due to the increased demands and the need to balance work and study.

In terms of other strategies, such as active coping, acceptance, distraction, denial, planning, humor, self-blame, behavioral disengagement, venting, substance use, positive reinterpretation, and religion, no significant differences were found ($p > 0.05$) between working and non-working students. This suggests that,

regardless of their employment status, students tend to employ these strategies similarly. The mean plot reinforces this analysis by showing that while differences in seeking support are evident, other strategies do not exhibit significant variations between the two groups.

3.1.5 Coping strategies according to academic semester

The correlation between the academic semester and the various coping strategies reveals interesting patterns, as shown in Table 4. Humor ($r = 0.127$, $p = 0.006$) and substance use ($r = 0.134$, $p = 0.004$) show significant positive correlations. This suggests that as students progress in their academic careers, they tend to use humor and substance use more frequently as coping mechanisms. These results may reflect an adaptation to the increasing academic and social challenges faced in higher semesters, where students might turn to these strategies to manage accumulated stress.

On the other hand, no significant correlations were found between the academic semester and other coping strategies such as seeking instrumental support ($r = -0.035$), active coping ($r = 0.002$), acceptance ($r = -0.026$), distraction ($r = 0.054$), denial ($r = -0.001$), planning ($r = 0.058$), self-blame ($r = 0.041$), seeking emotional support ($r = 0.028$), behavioral disengagement ($r = 0.060$), venting ($r = 0.021$), positive reinterpretation ($r = 0.005$), and religion ($r = 0.030$).

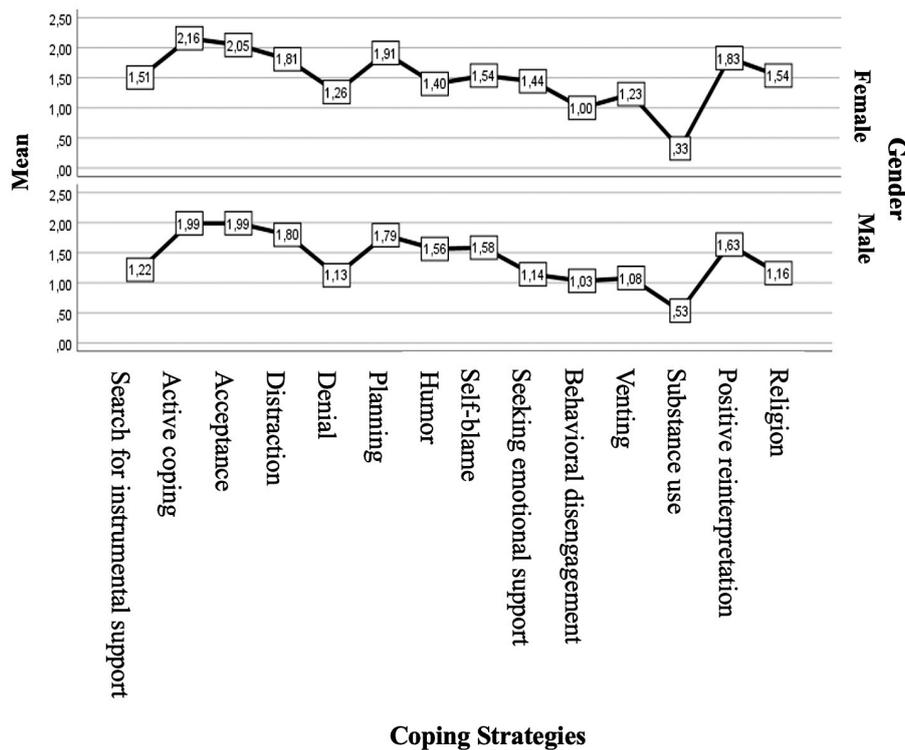


FIGURE 3 Mean of various coping strategies among currently employed individuals (lower graph) and those not employed (upper graph). This visualization highlights differences in stress management and coping strategies based on employment status, suggesting that being employed may influence the choice and effectiveness of coping mechanisms.

TABLE 4 Spearman’s Rho correlation of coping strategies with academic semester.

Coping strategies	Academic Semester
Search for instrumental support	-0.035
Active coping	0.002
Acceptance	-0.026
Distraction	0.054
Denial	-0.001
Planning	0.058
Humor	0.127**
Self-blame	0.041
Seeking emotional support	0.028
Behavioral disengagement	0.060
Venting	0.021
Substance use	0.134**
Positive reinterpretation	0.005
Religion	0.030

**Statistically significant correlation at $p < 0.001$.

TABLE 5 Spearman’s Rho Correlation of Coping Strategies with Household Income.

Coping strategies	Monthly household income
Active coping	0.116*
Acceptance	0.041
Distraction	-0.001
Denial	-0.101*
Planning	0.083
Humor	0.108*
Self-blame	-0.013
Seeking emotional support	0.039
Behavioral disengagement	0.014
Venting	0.022
Substance use	0.018
Positive reinterpretation	0.122**
Religion	-0.057

* $p < 0.05$, ** $p < 0.001$. These values highlight statistically significant correlations between the analyzed variables.

3.1.6 Coping strategies according to household income

The analysis of correlations between household income levels and coping strategies reveals several significant patterns, as shown

in [Table 5](#). Students from households with higher economic incomes tend to use active coping more frequently ($r = 0.116$, $p = 0.012$), indicating greater proactivity in problem-solving. This

TABLE 6 Mean coping strategies by marital status.

Marital status	Statistic	Search for instrumental support	Active coping	Acceptance	Distraction	Denial	Planning	Humor	Self-blame	Seeking emotional support	Behavioral disengagement	Venting	Substance use	Positive reinterpretation	Religion
Married	Mean	1.41	2.23	1.93	1.64	1.02	2.02	1.28	1.47	1.40	0.91	1.15	0.33	1.86	1.52
	SD	0.65	0.68	0.60	0.77	0.80	0.62	0.71	0.68	0.71	0.63	0.61	0.58	0.65	0.80
Divorced	Mean	1.42	2.38	2.29	1.92	1.50	2.00	1.58	1.33	1.13	0.96	1.21	0.58	1.96	1.71
	SD	0.67	0.53	0.33	0.67	0.71	0.77	0.67	0.81	0.68	0.58	0.58	0.67	0.58	0.96
Single	Mean	1.39	2.33	2.08	1.89	1.44	2.06	1.58	1.58	1.33	1.14	1.22	0.39	1.89	1.69
	SD	0.58	0.57	0.49	0.58	0.84	0.64	0.60	0.58	0.91	0.66	0.57	0.50	0.44	0.88
Free union	Mean	1.00	2.50	2.00	2.00	1.25	2.00	1.00	1.25	2.00	1.00	1.25	1.00	2.00	2.25
	SD	0.00	0.71	0.00	0.00	1.06	0.00	0.00	0.35	0.71	1.41	1.06	1.41	0.00	0.35
Widower	Mean	1.32	2.05	2.01	1.80	1.17	1.83	1.51	1.57	1.25	1.02	1.13	0.46	1.70	1.29
	SD	0.77	0.69	0.63	0.72	0.80	0.68	0.84	0.81	0.77	0.69	0.66	0.70	0.72	0.86

proactivity is also reflected in positive reinterpretation ($r = 0.122$, $p = 0.008$), where students from higher-income backgrounds are more inclined to find positive meanings in difficult situations, helping them manage stress more effectively.

Additionally, the data suggest that higher income levels are associated with a lower use of denial ($r = -0.101$, $p = 0.029$), indicating that these students are less likely to avoid or ignore problems. This may reflect a greater ability to confront reality and seek solutions. The positive correlation with humor ($r = 0.108$, $p = 0.020$) also suggests that students from more affluent households tend to use humor as a strategy to relieve stress, demonstrating a tendency to handle difficulties with a lighter and more positive attitude.

In contrast, no significant correlations were found between income levels and strategies such as acceptance, distraction, self-blame, seeking emotional support, behavioral disengagement, venting, and substance use. The non-significant correlation with religion ($r = -0.057$, $p = 0.217$) also indicates that the use of religious orientation as a coping strategy is not clearly influenced by household income.

3.1.7 Coping strategies according to marital status

The analysis of marital status and its relationship with coping strategies, using the Kruskal–Wallis test, reveals several important findings. As presented in Table 6, marital status has a significant impact on active coping ($H = 12.747$, $p = 0.026$). Specifically, single individuals and those in common-law relationships tend to use this strategy more frequently, with means of 2.33 and 2.50, respectively, indicating greater proactivity in problem-solving. Divorced individuals also show a high mean in this strategy (2.38),

which may reflect a need to address complex situations arising from their marital status.

Regarding planning, marital status also has a significant effect ($H = 14.690$, $p = 0.012$). Planning is more frequently used by individuals in common-law relationships (mean = 2.00) and single individuals (mean = 2.06), suggesting that these groups are more likely to anticipate and prepare solutions for future problems. This approach may stem from a need for greater foresight in their daily lives, particularly in managing relationships and personal finances.

The most pronounced influence of marital status is observed in the use of religion as a coping strategy ($H = 17.539$, $p = 0.004$). The data show that married individuals (mean = 1.52) and those in common-law relationships (mean = 2.25) are more likely to use religion to manage stress, compared to single (mean = 1.69) and divorced individuals (mean = 1.71).

3.1.8 Coping strategies according to birth order

Position in birth order exerts a notable influence on self-blame ($r = -0.166$, $p < 0.01$), as shown in Table 7. The data indicate that students higher in birth order, particularly firstborns, show a greater propensity to blame themselves when faced with stress. This pattern may reflect the additional expectations and responsibilities that firstborns often take on, leading them to internalize problems and assume greater guilt.

For other coping strategies, no significant correlations were found. Active coping ($r = 0.087$) and religion ($r = 0.083$) show positive trends, but they do not reach statistical significance, suggesting that birth order may influence the inclination to face problems actively and the use of religion as a strategy, although not decisively. This could indicate that these strategies

are more influenced by other personal or contextual factors beyond birth order.

Correlations for other coping strategies, such as seeking instrumental support ($r = 0.011$), distraction ($r = -0.071$), denial ($r = -0.038$), planning ($r = 0.042$), humor ($r = -0.036$), seeking emotional support ($r = 0.003$), behavioral disengagement ($r = -0.068$), venting ($r = 0.016$), substance use ($r = -0.073$), and positive reinterpretation, did not show significant results.

3.1.9 Coping strategies according to family role

The analysis of family roles, as illustrated in Table 8, shows that this factor influences the use of several coping strategies.

TABLE 7 Spearman’s rho coefficient by birth order.

Coping strategies	Birth order
Search for instrumental support	0.011
Active coping	0.087
Acceptance	-0.008
Distraction	-0.071
Denial	-0.038
Planning	0.042
Humor	-0.036
Self-blame	-0.166**
Seeking emotional support	0.003
Behavioral disengagement	-0.068
Venting	0.016
Substance use	-0.073
Positive reinterpretation	-0.01
Religion	0.083

**Statistically significant correlation at $p < 0.001$.

Specifically, the role within the family significantly impacts active coping ($H = 16.056, p = 0.003$). Children tend to use active coping more frequently (mean = 2.23) compared to other roles, possibly because they often take a more direct approach to problem management due to their family responsibilities and expectations.

Planning also varies significantly according to family role ($H = 12.533, p = 0.014$). Those who identify as parents and other family roles demonstrate a greater tendency to plan (mean = 2.06 and 2.50, respectively). This may reflect the necessity for these roles to anticipate and manage future events, which is crucial for maintaining stability and foresight in family life.

Regarding emotional support seeking, although the difference is only marginally significant ($H = 9.316, p = 0.054$), it is observed that parents and those in spousal roles tend to seek more emotional support (mean = 1.40 and 1.58, respectively). This may indicate a tendency to seek comfort and understanding from others to manage stress and negative emotions, which is vital in their supportive roles within the family environment.

Religion also shows significant differences according to family role ($H = 19.147, p < 0.001$). Fathers and mothers tend to use religion more frequently as a coping strategy (mean = 1.70 in both cases), which may reflect the importance of spirituality and faith in managing stress and finding meaning in their parental roles.

3.1.10 Coping strategies according to religion

The analysis of the influence of religious affiliation on coping strategies, using the Mann–Whitney test, reveals several significant differences as illustrated in the Figure 4. Results indicate that students with religious affiliation more frequently use positive reinterpretation ($U = 15,808.5, Z = -3.165, p = 0.002$) and religion ($U = 13,720.5, Z = -4.838, p < 0.001$) as coping strategies compared to those without religious affiliation.

On the other hand, students without religious affiliation tend to use instrumental support seeking ($U = 15,886.5, Z = -3.065, p = 0.002$) and distraction ($U = 17,115.5, Z = -2.060, p = 0.039$) more frequently to cope with stressful situations. This may indicate that,

TABLE 8 Mean coping strategies according to role in the family.

Role at home	Statistic	Search for instrumental support	Active coping	Acceptance	Distraction	Denial	Planning	Humor	Self-blame	Seeking emotional support	Behavioral disengagement	Venting	Substance use	Positive reinterpretation	Religion
Son/daughter	Mean	1.3	1.99	2.00	1.82	1.2	1.79	1.53	1.57	1.22	1.04	1.12	0.47	1.67	1.22
	SD	0.8	0.69	0.66	0.73	0.81	0.68	0.87	0.84	0.78	0.7	0.67	0.72	0.74	0.85
Mother	Mean	1.38	2.36	2.02	1.73	1.06	2.07	1.33	1.47	1.58	0.92	1.17	0.28	1.91	1.76
	SD	0.57	0.6	0.53	0.68	0.75	0.56	0.69	0.68	0.64	0.7	0.62	0.55	0.55	0.76
Father	Mean	1.4	2.24	2.04	1.7	1.06	1.96	1.49	1.61	1.13	0.99	1.2	0.58	1.79	1.39
	SD	0.71	0.64	0.49	0.69	0.84	0.64	0.69	0.74	0.71	0.58	0.58	0.64	0.62	0.81

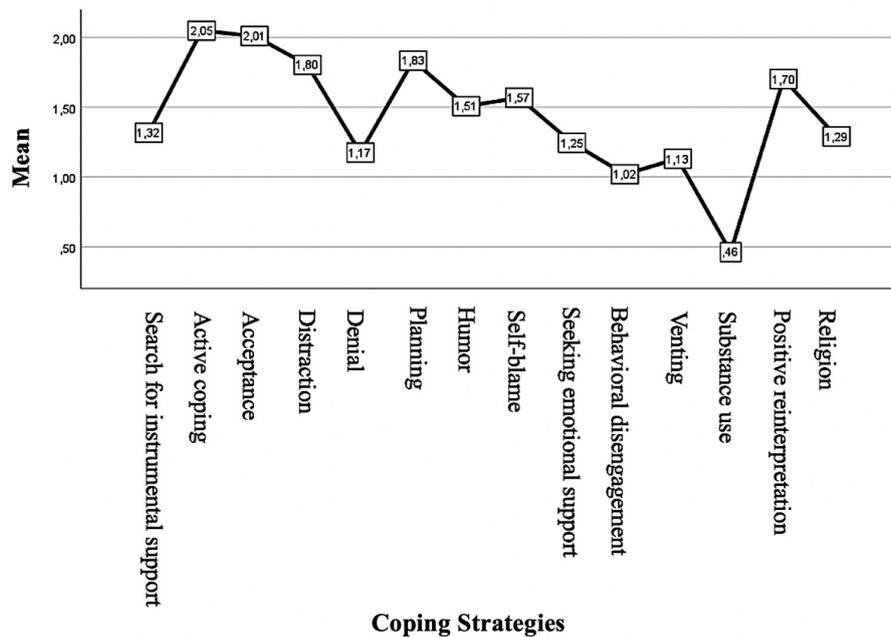


FIGURE 4

Mean coping strategies based on religious affiliation. The graph compares the average use of various coping strategies between individuals with religious affiliation (lower graph) and those without (upper graph). Results highlight significant differences in several strategies, suggesting that religious affiliation influences preferences and effectiveness of coping mechanisms in dealing with stress.

lacking spiritual support, these students seek practical help from others and engage in distracting activities to manage stress.

No significant differences were found in strategies such as active coping ($U = 17,371.5$, $Z = -1.861$, $p = 0.063$), acceptance ($U = 18,820.5$, $Z = -0.651$, $p = 0.515$), denial ($U = 18,865.5$, $Z = -0.599$, $p = 0.549$), planning ($U = 16,690.5$, $Z = -2.436$, $p = 0.015$), humor ($U = 17,937.0$, $Z = -1.366$, $p = 0.172$), self-blame ($U = 18,571.0$, $Z = -0.842$, $p = 0.400$), emotional support seeking ($U = 16,791.0$, $Z = -2.320$, $p = 0.020$), behavioral disengagement ($U = 18,607.5$, $Z = -0.820$, $p = 0.412$), venting ($U = 18,290.0$, $Z = -1.088$, $p = 0.276$), and substance use ($U = 19,084.0$, $Z = -0.469$, $p = 0.639$). These strategies appear to be similarly utilized by both groups.

The mean plot reinforces these observations, indicating higher values for positive reinterpretation and religion among students with religious affiliation, while instrumental support seeking and distraction are more prominent among those without religious affiliation.

3.1.11 Coping strategies according to type of religion

The analysis of coping strategies by type of religion, as shown in Table 9, reveals that participants identified as Evangelicals ($M = 1.61$) and Jehovah's Witnesses ($M = 1.25$) show the highest means in seeking instrumental support and active coping ($M = 2.25$). This suggests that these groups adopt a proactive approach, characterized by reliance on external support in stressful situations.

On the other hand, Atheists stand out for employing strategies such as acceptance ($M = 2.44$) and humor ($M = 2.23$), indicating a more internal and detached approach to coping with stress.

In contrast, participants who identify with a Christian religion exhibit a significant tendency toward self-blame ($M = 2.13$), which may reflect an inclination to internalize guilt in stressful contexts.

Additionally, those without a specific religion (None) and Christians tend to use positive reinterpretation ($M = 2.33$ and $M = 2.13$, respectively), suggesting an optimistic approach in reframing events.

These results suggest that the type of religion significantly influences the choice of coping strategies. Therefore, it is crucial to consider these differences when developing support interventions that integrate religious beliefs to provide more effective assistance in managing stress.

3.1.12 Coping strategies according to the people you live with

The analyses reveal that the people with whom one lives significantly influence certain coping strategies, as shown in Table 10. Students who live alone are less likely to seek instrumental support ($r = -0.092$) and emotional support ($r = -0.107$), suggesting they tend to handle stress more independently. In contrast, those who live with others, such as roommates, show greater planning ($r = 0.133$) and a higher inclination to seek emotional support ($r = 0.098$), which could be due to the need to coordinate with others to solve problems.

Students living with siblings tend to use active coping ($r = -0.097$) and substance use ($r = -0.094$) less frequently, which could reflect a dynamic of mutual support and a reduced need to confront problems independently. This trend is also

TABLE 9 Mean coping strategies according to religion practiced.

Religion	Statistic	Search for instrumental support	Active coping	Acceptance	Distraction	Denial	Planning	Humor	Self-blame	Seeking emotional support	Behavioral disengagement	Venting	Substance use	Positive reinterpretation	Religion
Atheist	Mean	0.92	1.79	2.44	1.92	1.13	1.63	2.23	1.92	0.79	1.21	1.19	1.06	1.58	0.63
	SD	0.64	0.74	0.52	0.72	0.91	0.63	0.86	0.88	0.53	0.78	0.66	0.98	0.67	0.76
Catholic	Mean	1.33	2.05	1.98	1.8	1.17	1.84	1.45	1.54	1.27	1.01	1.13	0.42	1.69	1.31
	SD	0.78	0.68	0.64	0.71	0.8	0.68	0.81	0.81	0.77	0.69	0.67	0.65	0.72	0.84
Christian	Mean	0.75	2.13	2.13	1.13	1.75	1.63	1.5	2.13	0.88	1	1	0.25	2.13	2
	SD	0.5	0.85	0.63	1.03	0.29	0.48	0.71	1.03	0.63	0.58	0.71	0.5	0.48	0.91
Evangelical	Mean	1.61	2.25	2.17	1.78	1.14	1.97	1.75	1.61	1.25	0.83	1.08	0.56	1.89	1.69
	SD	0.61	0.46	0.54	0.69	0.84	0.63	0.99	0.72	0.77	0.66	0.52	0.92	0.56	0.71
Other	Mean	1.17	2.33	2.17	1.67	1.17	2.17	1.67	1.17	1.83	1.17	0.83	0.67	2.33	0.67
	SD	1.15	0.76	0.29	1.04	1.26	0.58	0.29	1.26	0.76	0.76	0.76	1.15	0.76	1.15
Jehovah's witness	Mean	1.25	2.25	2.08	1.83	1.08	1.92	1.58	1.67	1.33	1	1.42	0.42	1.67	1.67
	SD	0.88	1.17	0.66	1.13	0.66	1.07	0.86	0.52	0.98	0.84	0.2	1.02	1.03	1.08

TABLE 10 Spearman's rho coefficient of coping strategies and the people they live with.

Coping strategies	Grandfather	Uncles	Siblings	Mother	Father	Others	Only
Search for instrumental support	-0.053	-0.023	0.051	0.090	0.051	0.058	-0.092*
Active coping	-0.076	-0.089	-0.097*	-0.047	0.027	0.093*	-0.002
Acceptance	0.006	-0.017	0.062	0.023	0.089	0.036	-0.078
Distraction	-0.022	-0.046	0.027	0.062	0.085	-0.050	0.001
Denial	0.058	0.026	-0.007	0.077	-0.027	-0.012	-0.064
Planning	-0.090	-0.022	-0.084	-0.049	0.018	0.133**	0.009
Humor	0.004	-0.020	0.053	0.086	0.074	0.045	-0.050
Self-blame	0.056	-0.009	0.064	0.113*	0.095*	-0.018	-0.057
Seeking emotional support	-0.041	-0.045	0.005	0.005	-0.013	0.098*	-0.107*
Behavioral disengagement	0.062	0.005	-0.026	0.008	-0.018	-0.011	0.020
Venting	0.007	-0.035	-0.034	0.029	-0.010	0.055	0.026
Substance use	0.035	-0.012	-0.004	-0.007	-0.094*	-0.042	-0.006
Positive reinterpretation	-0.026	-0.035	-0.048	0.030	0.021	0.073	-0.043
Religion	-0.104*	-0.017	-0.178**	-0.082	-0.041	0.116*	0.063

* $p < 0.05$, ** $p < 0.001$. These values highlight statistically significant correlations between the analyzed variables.

seen among those living with parents, where self-blame is more common ($r = 0.113$ for mother and $r = 0.095$ for father), possibly due to increased pressure to meet family expectations.

Overall, living with different family members and companions diversely affects coping strategies. Religion shows a significant

negative correlation with those living with grandparents ($r = -0.104$) and siblings ($r = -0.178$), while a positive correlation is observed among those living with others ($r = 0.116$). These findings underscore the importance of considering the family and living environment when developing interventions to support stress coping in students.

TABLE 11 Spearman's rho coefficient of coping strategies and parenting styles.

Parenting styles	Statistic	Search for instrumental support	Active coping	Acceptance	Distraction	Denial	Planning	Humor	Self-blame	Seeking emotional support	Behavioral disengagement	Venting	Substance use	Positive reinterpretation	Religion
Authoritarian	Mean	1.24	2.03	2.01	1.82	1.19	1.83	1.47	1.71	1.24	1.08	1.19	0.49	1.71	1.21
	SD	0.81	0.71	0.60	0.78	0.89	0.69	0.86	0.78	0.81	0.69	0.68	0.74	0.73	0.84
Democratic	Mean	1.30	2.16	2.05	1.80	1.08	1.91	1.56	1.39	1.29	0.91	1.02	0.34	1.76	1.43
	SD	0.75	0.66	0.66	0.65	0.69	0.67	0.79	0.81	0.73	0.68	0.62	0.56	0.73	0.86
Neglectful	Mean	1.57	1.82	2.04	1.54	1.25	1.71	1.36	1.61	1.46	1.18	1.61	0.21	1.64	1.25
	SD	0.81	0.50	0.75	0.95	0.64	0.64	1.01	0.84	0.84	0.67	0.79	0.47	0.72	0.96
Permissive	Mean	1.42	1.96	1.96	1.81	1.25	1.75	1.50	1.57	1.16	1.06	1.12	0.61	1.62	1.23
	SD	0.72	0.69	0.63	0.69	0.82	0.66	0.85	0.84	0.73	0.70	0.62	0.78	0.66	0.85

3.1.13 Coping strategies according to parenting styles

In the comparative analysis of parenting styles (Authoritarian, Democratic, Negligent, and Permissive) in relation to various coping strategies, the results shown in Table 11 indicate significant differences in certain aspects. The Democratic parenting style exhibits the highest mean in Active Coping (mean = 2.16) and Positive Reinterpretation (mean = 1.76), suggesting that individuals raised under this style tend to use more adaptive and positive strategies to manage stress.

In contrast, the Negligent parenting style shows a high tendency toward Seeking Emotional Support (mean = 1.61) and Behavioral Disengagement (mean = 1.46), which could indicate a more passive or evasive approach to difficulties. The Permissive style, while generally consistent in its means, stands out in Venting (mean = 1.12) and Substance Use (mean = 0.61), suggesting potentially less adaptive methods for managing stress. The Authoritarian style shows a notably high tendency in Self-Blame (mean = 1.71), which may reflect an internalization of stress leading to self-criticism. The Kruskal–Wallis H -test results reveal significant differences in Active Coping ($p = 0.019$), Self-Blame ($p = 0.003$), Venting ($p = 0.005$), and Substance Use ($p = 0.011$), highlighting that these coping dimensions vary significantly according to the perceived parenting style during childhood.

4 Discussion

The results of this study reveal significant differences in the coping strategies used by men and women. Women tend to use instrumental support seeking, active coping, seeking emotional support, and religion more frequently. In contrast, men show a greater propensity for substance use and positive reinterpretation. These findings are consistent with previous research, which is discussed in the following paragraphs.

On one hand, Babicka-Wirkus et al. (2021) found that women seek more support while men use humor more frequently. Wagner III (2019), Graves et al. (2021), Urbina-Garcia (2020), and Adasi et al. (2020) also observed that women prefer emotional and support-based strategies, whereas men tend toward self-criticism, problem avoidance, and substance use. Additionally, Ahmad and Jafree (2023) reported that women adopt more religious and spiritual strategies than men. In research more closely related to our context, Morejón Uchubanda (2019) at the Technical University of Ambato found that the most frequently employed coping strategy by men is problem-focused, while women prefer the strategy of positive reappraisal.

These results confirm the hypothesis that women employ more emotional and adaptive strategies, while men tend to use less adaptive strategies, such as substance use, although they also resort to positive reinterpretation. Therefore, these findings highlight the importance of considering gender as an essential sociodemographic variable when studying coping strategies; however, these strategies will depend on the context and the specific situations each individual faces.

Regarding age, the results of this study reveal a positive correlation between age and the use of active coping and planning strategies among older individuals. These findings are supported by previous studies, where Babicka-Wirkus et al. (2021) found that younger students (18–20 years) used active coping and planning strategies less frequently compared to older students (21–30 years). Similarly, Vetrov and Cedeño (2020) and Urbina-Garcia (2020) identified that participants aged 35–44 showed higher scores in problem-solving, emotional expression, social support, and cognitive restructuring. In contrast, participants aged 18–24 scored higher in self-criticism, wishful thinking, and problem avoidance. This suggests that adults are more likely to employ planning and to address problems by combining various strategies.

On the other hand, marital status exerts a significant influence on several coping strategies—specifically active coping, planning,

and religious coping—which constitute the approaches most frequently employed by Ecuadorian university students. These findings diverge from those of [Al Najjar et al. \(2017\)](#), who argue that students tend to select coping strategies primarily based on the specific characteristics of the situations they face rather than on sociodemographic factors such as marital status, age, or gender.

In the present study, coping strategies that exhibited significant associations included humor, negotiation, planning, emotional support seeking, and religion. Nevertheless, given that the sample comprised solely students from technical and economic sciences programs, discrepancies arise when compared to previous investigations. For instance, the study by [Rodríguez-Fernández et al. \(2020\)](#), conducted in Chile, reported that the predominant coping strategy was support seeking—especially among Nutrition students—whereas planning was more frequent in Occupational Therapy. Similarly, [Condoyque-Méndez et al. \(2016\)](#) observed that within Nursing, planning to manage concerns was the most utilized strategy, while in Nutrition information seeking prevailed. These differences suggest that coping strategies may vary considerably depending on the disciplinary field, specific academic demands, and the unique formative context of each program.

Additionally, this research revealed that substance use and humor increase as students progress through their academic semesters. In contrast, [Neufeld and Malin \(2021\)](#) found that the most commonly used coping strategy among third-year medical students was denial. [Dyson and Renk \(2006\)](#) examined how femininity and masculinity, along with depressive symptoms and stress levels, relate to coping strategies among first-year university students. Their findings indicate that these variables are interconnected, suggesting that gender roles significantly influence how students experience and manage stress and depression during the transition to university life.

Regarding employment status, 51.5% of students are employed, while 48.5% are not. The results show that working students tend to use instrumental support seeking and emotional support seeking more than their non-working counterparts. These findings are supported by [Maba and Hatta \(2022\)](#), who found a significant correlation between having a part-time job and the use of coping strategies, specifically problem-focused and emotion-focused coping.

Furthermore, students with religious affiliation tend to use positive reinterpretation and religion more frequently as coping strategies. In contrast, students without religious affiliation are more likely to resort to instrumental support seeking and distraction. This suggests that coping strategies may depend on the context ([Faradila et al., 2023](#)). Similarly [Chai et al. \(2012\)](#) revealed that Asian students in New Zealand were more inclined to use religious coping strategies compared to European students, and [Krägeloh et al. \(2012\)](#) emphasized that higher levels of religiosity and spirituality are associated with problem-focused coping strategies, whereas lower levels of these traits are linked to maladaptive or avoidant coping strategies, with distraction being one of these variables.

Emphasizing the role in the household and coping strategies, this research revealed that students living alone tend to seek less instrumental and emotional support. Those living with siblings are

less likely to use active coping and substances. In contrast, students living with others exhibit greater planning and emotional support seeking. Additionally, self-blame and the use of religion are more associated with those living with their mothers. These findings align with those of [Orlova \(2020\)](#), who state that family structure influences students' coping strategies. [Vasileiou et al. \(2019\)](#) also found that students living alone tend to use distractions, seek support, socially isolate themselves, be self-reliant, and engage in problem-solving as coping strategies.

Regarding household income levels, the results of this research indicate that higher income is associated with increased use of active coping and positive reinterpretation, and less use of denial. These findings contrast with the study by [Condoyque-Méndez et al. \(2016\)](#), which did not find this relationship. Moreover, these results are challenging to discuss due to the lack of research that thoroughly examines these variables.

Birth order influences students' coping strategies. Our research revealed that firstborns tend to blame themselves more in stressful situations, possibly due to the greater expectations and responsibilities they assume, such as working, being parents, or being students. Previous studies, such as those by [Ergüner-Tekinalp and Terzi \(2016\)](#), suggest that birth order has a notable influence on coping strategies and resilience, highlighting that middle and youngest children tend to show greater resilience, while childhood traumas in middle and only children are associated with increased social anxiety. However, [Erdoğan et al. \(2021\)](#) emphasize that, although there is no direct relationship between being the firstborn and the use of coping strategies, these are mediated by childhood traumas and self-efficacy expectations.

Parenting styles influence university students' coping strategies. In line with [Cabas-Hoyos et al. \(2015\)](#), adaptive strategies such as problem solving and positive interpersonal relationships are more common in certain parenting styles. This research revealed that the democratic style tends to employ more adaptive and positive strategies, such as active coping and positive reinterpretation. In contrast, those with a Negligent style tend to seek more emotional support and engage in behavioral disengagement. The Permissive style is associated with greater use of venting and substances, while the Authoritarian style is linked to increased self-blame. This is similar to the findings of [Bishop et al. \(2019\)](#), who indicated that students raised by authoritarian and permissive parents employ more effective coping strategies, such as support seeking and problem solving. [Oktaviani et al. \(2023\)](#) emphasized that parenting style, social support, and peer relationships influence coping strategies during learning, highlighting the importance of active and adaptive coping strategies.

The results of this study reveal that university students' coping strategies are significantly influenced by sociodemographic variables, including religion, gender, age, marital status, and family living arrangements. These differences highlight the diversity of coping mechanisms and underscore the need to consider context and demographic characteristics when designing psychosocial interventions tailored to students' specific needs.

Religious affiliation plays a key role, with affiliated students more inclined toward positive reinterpretation and religious coping, while unaffiliated students tend to seek instrumental

support and distraction. Gender differences were also observed: women more frequently employ instrumental and emotional support, active coping, and religious strategies, whereas men tend to rely on substance use and positive reinterpretation. These findings suggest that interventions should be sensitive to gender differences, promoting adaptive strategies for men and reinforcing emotional resources for women.

Age and marital status emerged as significant factors, with older students and those in relationships favoring planning and active coping. Family structure and living arrangements further influenced coping strategies: students living alone or with siblings tended to manage stress more independently, whereas those living with parents or in family settings reported greater reliance on religious coping and self-blame. These patterns highlight the importance of integrating family and social dynamics into the design of psychosocial support programs.

Overall, this research provides valuable insights into the complex interplay between sociodemographic variables and coping strategies among university students. The findings underscore the necessity of culturally and demographically informed interventions that enhance psychological wellbeing and resilience in this population.

However, the study presents certain limitations. The cross-sectional design restricts the observation of changes in coping strategies over time, and the exclusion of specific measures of academic stress may have influenced the results. Additionally, the study's focus on a particular geographical and cultural context limits the generalizability of its findings. Future research should employ longitudinal designs and explore diverse academic and cultural settings to deepen the understanding of how sociodemographic factors influence coping mechanisms.

In conclusion, this study contributes to the literature on coping strategies and highlights the need for targeted interventions that account for students' sociodemographic and cultural diversity. By addressing these factors, universities can promote emotional wellbeing and resilience, equipping students to navigate the complex challenges of academic life.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

The study adhered to the ethical principles outlined in the International Ethical Guidelines for Health-Related Research Involving Humans by CIOMS. Participation was voluntary,

based on informed consent, and ensured privacy, confidentiality, and wellbeing, aligning with international ethical standards. No formal Ethics Committee approval was required. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

Author contributions

DG-G: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Software, Supervision, Visualization, Writing – original draft, Writing – review & editing, Resources. LG-V: Formal analysis, Investigation, Methodology, Supervision, Validation, Visualization, Writing – review & editing, Conceptualization. JQ-C: Conceptualization, Methodology, Supervision, Validation, Visualization, Writing – review & editing, Investigation.

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References

Adasi, G. S., Amponsah, K. D., Mohammed, S. M., Yeboah, R., and Mintah, P. C. (2020). Gender differences in stressors and coping strategies among teacher education students at University of Ghana. *J. Educ. Learn.* 9, 123–133. doi: 10.5539/jel.v9n2p123

Ahmad, S., and Jafree, S. R. (2023). Influence of gender identity on the adoption of religious-spiritual, preventive and emotion-focused coping strategies during the COVID-19 pandemic in Pakistan. *Ann. Med.* 55:2291464. doi: 10.1080/07853890.2023.2291464

- Al Najjar, A., Hamid, A., and Abdullah, S. (2017). Coping strategies of students in the United Arab Emirates university: a research application of the Arabic version of the CISS. *Res. Humanit. Soc. Sci.* 7, 40–49.
- Alsubaie, M., Stain, H., Webster, L., and Wadman, R. (2019). The role of sources of social support on depression and quality of life for University Students. *Int. J. Adolesc. Youth* 24, 484–496. doi: 10.1080/02673843.2019.1568887
- Babicka-Wirkus, A., Wirkus, L., Stasiak, K., and Kozłowski, P. (2021). University students' strategies of coping with stress during the coronavirus pandemic: data from Poland. *PLoS ONE* 16:e0255041. doi: 10.1371/journal.pone.0255041
- Bedoya Cardona, E. Y. (2021). Stress, cognitive-emotional regulation, coping, and health in Colombian university students. *Rev. Praxis Saber* 12:11534. doi: 10.19053/22160159.v12.n30.2021.11534
- Bishop, D. I., Hansen, A. M., Keil, A. J., and Phoenix, I. V. (2019). Parental attachment and adjustment to college: the mediating role of avoidant coping. *J. Genet. Psychol.* 180, 31–44. doi: 10.1080/00221325.2019.1577797
- Böke, B. N., Mills, D. J., Mettler, J., and Heath, N. L. (2019). Stress and coping patterns of university students. *J. Coll. Stud. Dev.* 60, 85–103. doi: 10.1353/csd.2019.0005
- Bozgeyikli, H., Boğazlıyan, E. E., and Avşaroğlu, S. (2023). University students' employment anxiety and ways of coping in the context of incomplete learning during the pandemic period: a qualitative research. *Int. J. Educ. Res. Rev.* 4, 901–915. doi: 10.24331/ijere.1330531
- Burgin, X. D., and Daniel, M. C. (2020). Examining Ecuadorian teachers' perspectives on their students' multiculturalism. *Intercult. Educ.* 31, 482–488. doi: 10.1080/14675986.2020.1766197
- Cabas-Hoyos, K., German-Ayala, N., Espriella DL, N., Martínez-Burgos, L., and Uribe-Urzola, A. (2015). Coping and anxiety in young university students. *Eur. Psychiatry* 30, 1892. doi: 10.1016/S0924-9338(15)32126-X
- Cage, E., Jones, E., Ryan, G., Hughes, G., and Spanner, L. (2021). Student mental health and transitions into, through and out of university: student and staff perspectives. *J. Furth. High. Educ.* 45, 1076–1089. doi: 10.1080/0309877X.2021.1875203
- Chai, P. P. M., Krägeloh, C. U., Shepherd, D., and Billington, R. (2012). Stress and quality of life in international and domestic university students: cultural differences in the use of religious coping. *Ment. Health Relig. Cult.* 15, 265–277. doi: 10.1080/13674676.2011.571665
- Chirinos Gutiérrez, O. (2020). *Universidad San Ignacio de Loyola* (Undergraduate thesis). Available online at: <https://hdl.handle.net/20.500.14005/10298>
- Condoyque-Méndez, K. J., Herrera-Pérez, A. E., Ramírez-Pacheco, A., Hernández-González, P. L., and Hernández-Arzola, L. I. (2016). Nivel de estrés en los estudiantes de las licenciaturas en enfermería y nutrición de la universidad de la sierra sur. *Rev. Salud Adm.* 3, 15–24.
- Dyson, R., and Renk, K. (2006). Freshmen adaptation to university life: depressive symptoms, stress, and coping. *J. Clin. Psychol.* 62, 1231–1244. doi: 10.1002/jclp.20295
- Erdoğan, B., Akçan, G., and Öztürk, E. (2021). The investigation of the mediating role of coping strategies on the relationship between childhood traumas, depression and alcohol use disorder in university students. *J. Subst. Abuse Treat.* 123:108305. doi: 10.1016/j.jsat.2021.108305
- Ergüner-Tekinalp, B., and Terzi, Ş. (2016). Coping, social interest, and psychological birth order as predictors of resilience in turkey. *Appl. Res. Qual. Life* 11, 509–524. doi: 10.1007/s11482-014-9378-3
- Faradila, A., Karimah, A., and Irwadi, I. (2023). The relationship between religious coping and resilience in Universitas Airlangga medical students class of 2020 in pandemic time. *Surabaya Psychiatr. J.* 12, 132–139. doi: 10.20473/jps.v12i2.41809
- Fernández-Martín, F. D., Flores-Carmona, L., and Arco-Tirado, J. L. (2022). Coping strategies among undergraduates: Spanish adaptation and validation of the brief-cope inventory. *Psychol. Res. Behav. Manag.* 15, 991–1003. doi: 10.2147/PRBM.S356288
- Fischer, R., Scheunemann, J., and Moritz, S. (2021). Coping strategies and subjective well-being: context matters. *J. Happiness Stud.* 22, 3413–3434. doi: 10.1007/s10902-021-00372-7
- Fitzgibbon, K., and Murphy, K. D. (2023). Coping strategies of healthcare professional students for stress incurred during their studies: a literature review. *J. Ment. Health* 32, 492–503. doi: 10.1080/09638237.2021.2022616
- Fomina, T., Filippova, E. F., Burmistrova-Savenkova, A. V., and Morosanova, V. (2024). Stress in the educational environment and its impact on academic success and psychological wellbeing of students. *Natl. Psychol. J.* 19, 148–160. doi: 10.11621/npj.2024.0410
- Freire, C., Ferradás, M. M., Regueiro, B., Rodríguez, S., Valle, A., and Núñez, J. C. (2020). Coping strategies and self-efficacy in university students: a person-centered approach. *Front. Psychol.* 11:841. doi: 10.3389/fpsyg.2020.00841
- Gao, Z., and Wang, Q. (2023). "Employment pressure of Chinese college students and its alleviating strategies," in *SHS Web of Conferences* (Les Ulis: EDP Sciences). doi: 10.1051/shsconf/202318002032
- Graves, B. S., Hall, M. E., Dias-Karch, C., Haischer, M. H., and Apter, C. (2021). Gender differences in perceived stress and coping among college students. *PLoS ONE* 16:e0255634. doi: 10.1371/journal.pone.0255634
- Guerrero-Quiñonez, A. J., Guagua, O. Q., and Barrera-Proañó, R. G. (2023). A look at university education in Ecuador: politics, quality and teaching. *Ibero-Am. J. Educ. Soc. Res.* 3, 233–237. doi: 10.56183/iberroeds.v3i1.623
- Gupta, P., Singh, S., Mahour, P., Gupta, B., Agarwal, M., Dalal, P., et al. (2023). Mental health outcome in hospitalized COVID-19 patients: an observational analysis from north Indian tertiary care hospital. *Clin. Epidemiol. Glob. Health* 19:101209. doi: 10.1016/j.cegh.2022.101209
- Gustems-Carnicer, J., Calderón, C., and Calderón-Garrido, D. (2019). Stress, coping strategies and academic achievement in teacher education students. *Eur. J. Teach. Educ.* 42, 375–390. doi: 10.1080/02619768.2019.1576629
- Hama, R. (2023). Coping strategies among university students and their relationship with parenting styles. *J. Sulaimani Med. Coll.* 13, 69–74. doi: 10.17656/jsmc.10398
- Hernández-Samperi, R., and Mendoza, C. (2020). 1st Edn. Ciudad de México, México: McGraw-Hill Interamericana.
- Hoof, H. B. V., Estrella, M., Eljuri, M.-I., and León, L. (2013). Ecuador's higher education system in times of change. *J. Hispanic High. Educ.* 12, 345–355. doi: 10.1177/1538192713495060
- Hsu, T.-L., and Barrett, A. (2020). The association between marital status and psychological well-being: variation across negative and positive dimensions. *J. Fam. Issues* 41, 2179–2202. doi: 10.1177/0192513X20910184
- Jiboc, A. M. (2022). The necessity of using adaptive coping mechanisms in the context of online teaching. *Broad Res. Artif. Intell. Neurosci.* 16, 510–517. doi: 10.18662/brain/13.1/296
- Jimeno, A. P., and López, S. C. (2019). Regulación emocional y afrontamiento: Aproximación conceptual y estrategias. *Rev. Mex. Psicol.* 36, 74–83.
- Kamaludin, K., Chinna, K., Sundarasan, S., Khoshaim, H., Nurunnabi, M., Baloch, G. M., et al. (2020). Coping with COVID-19 and movement control order (MCO): experiences of university students in Malaysia. *Heliyon* 6:e05339. doi: 10.1016/j.heliyon.2020.e05339
- Krägeloh, C. U., Chai, P. P. M., Shepherd, D., and Billington, R. (2012). How religious coping is used relative to other coping strategies depends on the individual's level of religiosity and spirituality. *J. Relig. Health* 51, 1137–1151. doi: 10.1007/s10943-010-9416-x
- Lankan, S., Kauashani, T. H. M., and Weeratunga, E. (2023). Coping strategies among undergraduates of the University of Ruhuna, southern province, Sri Lanka, during the COVID-19 pandemic. *Sri Lankan J. Nurs.* 22:38. doi: 10.4038/sljn.v2i1.37
- Liu, Y. (2024). Current situation of university students' employment and countermeasures. *Front. Bus. Econ. Manag.* 17, 151–155. doi: 10.54097/jq5he911
- Maba, A. P., and Hatta, K. (2022). The relationship of demographical factors on university students' coping strategy. *Jurnal Iqra: Kajian Ilmu Pendidikan* 7, 346–355. doi: 10.25217/ji.v7i2.2407
- Marakshina, J., Ismatullina, V., and Marina, L. (2024). Stress and coping strategies among students: review. *Clin. Psychol. Spec. Educ.* 13, 5–33. doi: 10.17759/cpspe.2024130201
- Mohajan, H. K. (2020). Quantitative research: a successful investigation in natural and social sciences. *J. Econ. Dev. Environ. People* 9, 50–79. doi: 10.26458/jedep.v9i4.679
- Morales Rodríguez, F. M. (2020). Estrategias de afrontamiento, empatía y tendencia prosocial en universitarios. *Eur. J. Educ. Psychol.* 13, 187–200. doi: 10.30552/ejep.v13i2.360
- Morán, C., Landero, R., and González, M. T. (2010). Cope-28: un análisis psicométrico de la versión en español del brief cope. *Univ. Psychol.* 9, 543–552. doi: 10.11144/javeriana.upsy9-2.cpv
- Morejón Uchubanda, L. L. (2019). *Inteligencia y Estrategias de Afrontamiento en Estudiantes Universitarios* (Bachelor's thesis). Universidad Técnica de Ambato, Facultad de Ciencias de la Salud. Available online at: <https://redi.cedia.edu.ec/document/505287>
- Moreno-Montero, E., del Mar Ferradás, M., and Freire, C. (2024). Personal resources for psychological well-being in university students: the roles of psychological capital and coping strategies. *Eur. J. Investig. Health Psychol. Educ.* 14, 2686–2701. doi: 10.3390/ejihpe14100177
- Mustafa, M. L. A., Muhammed, S., and Adeboye, K. (2023). Demographic variables influence on challenges and coping strategies of bullied in-school adolescents in Kwara state (Nigeria). *Rev. Estud. Invest. Psicol. Educ.* 10, 318–338. doi: 10.17979/reipe.2023.10.2.10066
- Neufeld, A., and Malin, G. (2021). How medical students cope with stress: a cross-sectional look at strategies and their sociodemographic antecedents. *BMC Med. Educ.* 21:299. doi: 10.1186/s12909-021-02734-4
- Oktaviani, M., Elmanora, and Hasanah, U. (2023). Parenting style, social support, peer relationship, and coping strategies among students during online learning. *J. Fam. Sci.* 8, 249–263. doi: 10.29244/jfs.v8i2.49756

- Orlova, M. (2020). Dependence of family coping on individual adaptation strategies and family environment characteristics. *Izvestiya Saratov Univ. Philos. Psychol. Pedagogy* 20, 428–433. doi: 10.18500/1819-7671-2020-20-4-428-433
- Rodríguez-Fernández, A., Maury-Sintjago, E., Troncoso-Pantoja, C., Morales-Urzúa, M., and Parra-Flores, J. (2020). Estrés académico y estrategias de afrontamiento en estudiantes de carreras de salud de Santiago de Chile. *Edumecentro* 12, 1–16.
- Santiago, L., and Pinto, J. C. (2021). Distress and coping in third year, 2020–2201 Portuguese medicine students. *Eur. J. Public Health*. 31:ckab120.017. doi: 10.1093/eurpub/ckab120.017
- Shukla, N., and Shukla, A. (2023). Gender variations in coping strategies for challenges faced by university students. *Mind Soc.* 12, 65–72. doi: 10.56011/mind-mri-122-20238
- Silva-Martínez, G., Iglesias-Martínez, M. J., and Lozano-Cabezas, I. (2023). A qualitative study on barriers in learning opportunities in Ecuadorian higher education. *Societies* 13:56. doi: 10.3390/soc13030056
- Sinnott, S. M., Park, C. L., and Huedo-Medina, T. B. (2022). Cognitive coping reduces posttraumatic stress symptoms, especially in the context of self-blame. *J. Aggress. Maltreat. Trauma* 31, 1108–1127. doi: 10.1080/10926771.2022.2061879
- Solberg, M. A., Gridley, M. K., and Peters, R. M. (2022). The factor structure of the brief cope: a systematic review. *West. J. Nurs. Res.* 44, 612–627. doi: 10.1177/01939459211012044
- Tilstra, A., and Kapelle, N. (2025). Breaking bonds, changing habits: understanding health behaviors during and after marital dissolution. *J. Health Soc. Behav.* 221465251320079. doi: 10.1177/00221465251320079
- Torres, C., Otero, P., Bustamante, B., Blanco, V., Díaz, O., Vázquez, F., et al. (2017). Mental health problems and related factors in Ecuadorian college students. *Int. J. Environ. Res. Public Health* 14:530. doi: 10.3390/ijerph14050530
- Tran, A., and Lumley, M. (2019). Internalized stigma and student well-being: the role of adaptive and maladaptive coping. *Soc. Work Ment. Health* 17, 408–425. doi: 10.1080/15332985.2018.1563023
- Urbina-García, A. (2020). What do we know about university academics' mental health? A systematic literature review. *Stress Health*. 36, 563–585. doi: 10.31234/osf.io/37jhr
- Vasileiou, K., Barnett, J., Barreto, M., Vines, J., Atkinson, M., Long, K., et al. (2019). Coping with loneliness at university: a qualitative interview study with students in the UK. *Ment. Health Prev.* 13, 21–30. doi: 10.1016/j.mhp.2018.11.002
- Velastegui-Hernández, R., Romero-Peña, S., Martínez-Pérez, S., and Muyulema-Muyulema, D. (2024). Analysis of Ecuador's higher education processes. *593 Digit. Publisher CEIT* 9, 106–117. doi: 10.33386/593dp.2024.4-1.2655
- Vetrov, A. T. G., and Cedeño, M. L. G. (2020). Resiliencia y estrategias de afrontamiento en estudiantes egresados de psicología clínica de la universidad técnica de manabí durante la pandemia COVID-19: resiliencia y estrategias de afrontamiento. *Sinapsis* 3:1. doi: 10.37117/s.v3i18.413
- Wagner, W. E. III (2019). *Using IBM®SPSS®Statistics for Research Methods and Social Science Statistics*. London: Sage Publications.
- Yaghi, A., and Alabed, N. (2021). *Dificultades en la toma de decisiones profesionales entre estudiantes universitarios: ¿Importa la situación laboral?* *High. Educ. Skills Work-Based Learn.* 11, 1143–1159.
- Yusoff, A. M. B., Khan, A., Latif, A., and Aziz, D. A. (2019). Coping strategies as a mediator between stress and marital quality among postgraduate students. *Indian J. Public Health Res. Dev.* 10, 1382–1387. doi: 10.5958/0976-5506.2019.00906.9