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# THE ROLE OF RESILIENCE AS A PROTECTIVE FACTOR TO PREVENT MENTAL HEALTH DEPRESSION AND SUICIDAL IDEATION IN THE UNIVERSITY STUDENTS

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## ABSTRACT

University students are highly exposed to mental health risks like depression and suicidal ideation, which highlights the need to identify the protective psychological factors. This study assessed resilience as a protective factor against depression, health deterioration, and suicidal ideation in university students. The study employed a quantitative, non-experimental, cross-sectional, and correlational research design. The sample consisted of 660 undergraduate students from off-campus academic units of the Autonomous University of Nayarit, selected using a cluster random sampling method. Participants had completed validated measures of resilience, depressive symptoms, general mental health, and suicidal ideation. Pearson correlation analyses proved that resilience was significantly and negatively linked with depression ( $r = -.065, p < .05$ ), health deterioration ( $r = -.191, p < .01$ ), and suicidal ideation ( $r = -.110, p < .01$ ). MANOVA showed significant differences among low, moderate, and high resilience groups ( $\Lambda = .993, p < .001$ ). ANOVA and Bonferroni post-hoc tests highlighted that students with low resilience significantly reported higher levels of depression, health deterioration, and suicidal ideation. Linear regression analysis revealed that health deterioration significantly predicted resilience ( $\beta = -0.461, p < 0.001$ ), accounting for 27% of the variance. All such findings confirm resilience to be a key protective factor and even support the implementation of preventive mental health interventions in the higher education.

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**KEYWORDS:** Resilience, Depression, Suicidal Ideation, University Students, Mental Health.

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## 1. INTRODUCTION

Mental health issues among university students have been a growing global concern, mainly the rise in depressive symptoms and suicidal ideation in early adulthood. University life shows a critical developmental period that is marked by academic demands, identity consolidation, social transitions, and higher autonomy, all of which may increase psychological vulnerability. In recent years, such stressors have been exacerbated through the broader social and economic problems, which include the psychosocial consequences regarding the post-COVID-19 period, putting university students at heightened risk for mental health deterioration (Gómez-García *et al.*, 2023, as cited in Vargas *et al.*, 2025).

Depression is one of the highly prevalent mental health disorders amongst university populations and is characterized by persistent sadness, loss of interest, as well as cognitive and somatic symptoms, which negatively impact academic performance, quality of life, and interpersonal functioning (Rosales *et al.*, 2025). Moreover, depressive symptomatology is constantly associated with suicidal ideation, which includes thoughts, plans, or intentions regarding self-harm and shows a major public health concern in young adults (Rodríguez Kuri *et al.*, 2025; Navarrete-Lema & Rodríguez-Pérez, 2021). Epidemiological evidence proves that suicide is one of the leading causes of death amongst individuals who are aged 15 to 29 worldwide, which underscores the urgency to identify both risk and protective factors in the university years (WHO, 2021).

In the context of Mexican universities, recent studies report higher levels of depression, anxiety, and suicidal ideation amongst the students, mainly during the beginning years of study and among women. Such mental health issues not just compromise the well-being of students but also challenge higher education institutions, which are highly called upon to respond to the emotional and psychological needs of the students (Osorio *et al.*, 2022). Regardless of the growing institutional awareness, preventive strategies are reactive, paying heed to crisis intervention instead of strengthening the protective psychological resources.

Thus, resilience has been a key construct in mental health research. Resilience is considered a dynamic process of positive adaptation referring to adversity, which allows individuals to maintain or regain psychological well-being irrespective of exposure to significant stressors (Cardona, Ramírez, & Rivas, 2020; Luthar *et al.*, 2000; Román *et al.*, 2020, as cited

in Gómez *et al.*, 2022). Instead of being a fixed trait, resilience includes the interaction of personal strengths, cognitive skills, and contextual resources, which include family and social support. Empirical evidence suggests that higher resilience is linked with lower levels of depression, psychological distress, including suicidal ideation, which positions resilience as a core protective factor in young adult mental health.

Theoretical frameworks from systemic family therapy, social learning theory, including cognitive-behavioral models, give a comprehensive foundation to understand the protective role of resilience. From the systemic perspective, resilience is formed by the reciprocal interactions between the individuals, including their relational environments, focusing on the significance of family and social support (Cardona *et al.*, 2020). Social learning theory by Bandura (1997) specifies the role of self-efficacy and observational learning in acquiring adaptive coping strategies, whereas the cognitive-behavioral approaches link overall resilience to cognitive flexibility, along with the ability to challenge the maladaptive thought patterns linked with depression and hopelessness (Caldera Montes *et al.*, 2016; Fínez-Silva *et al.*, 2019). Hence, these perspectives suggest that resilience may buffer the effect of academic and psychosocial stressors on mental health outcomes.

Though the international research tends to support the protective role of resilience, there is a need for empirical studies that examine such a relationship within particular cultural and institutional contexts (Fínez-Silva *et al.*, 2019). In Mexico, studies paying heed simultaneously to resilience, depression, health deterioration, as well as suicidal ideation among university students are yet limited, mainly in populations that are located outside main metropolitan campuses (Navarrete-Lema & Rodríguez-Pérez, 2022; Rodríguez Kuri *et al.*, 2025). Thus, it is important to understand how resilience operates in such contexts to design culturally sensitive and institutionally specific prevention strategies.

This study aims to examine the role of resilience as a protective factor against depression, health deterioration, and suicidal ideation among university students at the Autonomous University of Nayarit. Moreover, this study sought to (a) assess the relationships between resilience and mental health indicators, (b) compare the levels of depression, health deterioration, and suicidal ideation across low, moderate, and high resilience groups, and (c) discover the predictive value of such variables with

regard to resilience. While identifying the resilience-based differences and associations, this research seeks to contribute to the empirical evidence for informing the preventive mental health interventions in the higher education settings.

## 2. METHODS

### 2.1 Study Design

This study followed a quantitative, non-experimental, cross-sectional, correlational design for examining the relationships between depression, resilience, health deterioration, and suicidal ideation amongst university students. Provided the observational nature of the variables, no manipulation was performed.

### 2.2 Participants and Sampling

The study population comprised undergraduate students who were enrolled in off-campus academic units of the Autonomous University of Nayarit. The sample of 660 students took part in the study. Participants were chosen using cluster random sampling, with academic units working as sampling clusters to ensure the representation of various fields of study. Eligibility criteria involved being an active undergraduate student as well as providing informed consent. Participation was voluntary and anonymous. The final sample sufficiently represented the diversity of academic programs at the institution.

### 2.3 Instruments

Data were gathered with the use of standardized and validated instruments:

- **Resilience Scale** (Wagnild & Young, 1993): Measures adaptive capacity referring to adversity. Higher scores indicate greater resilience.
- **Center for Epidemiologic Studies Depression Scale (CES-D)** (Radloff, 1977): Measures depressive symptoms experienced during the past week.
- **General Health Questionnaire (GHQ-12)** (Goldberg & Williams, 1988): Assesses general mental health and psychological distress.
- **Suicidal Ideation Scale** (González-Forteza, Lira, & Wagner, 1998): Measures suicidal thoughts and intent.

All instruments ensured adequate internal consistency in the current sample, with Cronbach's alpha coefficients that range from .77 to .96.

### 2.4 Procedure

Authorization was attained from the academic authorities of the participating units before data

collection. Students were informed regarding the objectives of the study, confidentiality, the voluntary nature of participation, and their right to withdraw whenever they want without penalty. After giving informed consent, participants completed the questionnaires in the classroom settings under standardized conditions

### 2.5 Data analysis

The study organized and coded the data in Microsoft Excel, and then migrated the information to a much more powerful statistical software: SPSS (Statistical Package for the Social Sciences) from IBM, specifically version 22. Using the SPSS program, the variables were analyzed and data were obtained using descriptive statistics; the means and standard deviation were calculated to understand how the variables of resilience, depression, and suicidal ideation are correlated in the group of university students. Through advanced statistical analysis, sophisticated techniques were applied, such as MANOVAs, ANOVAs, linear regression, and the Bonferroni test, in addition to calculating the correlations between all the study variables. These statistical results were the basis for the interpretation and final discussion, allowing us to understand how protective and risk factors are related in the lives of university students.

### 2.6 Ethical Considerations

The study adhered to the international ethical standards for research with human participants, which include the Declaration of Helsinki (World Medical Association, 2013). Confidentiality, including anonymity, was guaranteed, and no identifying information was gathered.

## 3. RESULTS

*Table 1: Pearson Correlations Between Study Variables.*

Variable	1	2	3	4
1. Resilience	1			
2. Depression	-.065*	1		
3. Deterioration of Health	-.191**	.708**	1	
4. Suicidal Ideation	-.110**	.535**	.479**	1

Table 1 shows the Pearson correlations between the study variables. Resilience was negatively correlated with the factor of depression ( $r = -.065$ ,  $p < .05$ ), health deterioration ( $r = -.191$ ,  $p < .01$ ), as well as suicidal ideation ( $r = -.110$ ,  $p < .01$ ). Significant positive correlations had been observed between depression as well as health deterioration ( $r = .708$ ,  $p < .01$ ), depression including suicidal ideation ( $r = .535$ ,  $p < .01$ ), whereas health deterioration and

suicidal ideation ( $r = .479$ ,  $p < .01$ ). All this indicated that higher levels of depression and health

deterioration are linked with higher suicidal ideation.

**Table 2: Group Differences in Depression, Health Deterioration, and Suicidal Ideation Across Resilience Levels.**

Variable	High Resilience M (SD)	Moderate Resilience M (SD)	Low Resilience M (SD)	F	$\eta^2$
Depression	1.96 (.58)	2.44 (.61)	2.68 (.68)	83.63***	.166
Deterioration of Health	.80 (.45)	1.33 (.49)	1.64 (.52)	87.77***	.173
Suicidal Ideation	1.18 (.38)	1.43 (.56)	1.71 (.78)	103.68***	.198

Table 2 shows the mean differences across resilience groups i.e. high, moderate, low, for depression, health deterioration, and suicidal ideation. MANOVA results confirmed significant overall differences between the resilience groups ( $\Lambda = .993$ ,  $F(7, 833) = 16970.78$ ,  $p < .001$ ,  $\eta^2 = .993$ ). Separate ANOVAs proved significant group differences for depression ( $F(2, 839) = 83.63$ ,  $p < .001$ ,  $\eta^2 = .166$ ), health deterioration ( $F(2, 839) = 87.77$ ,  $p <$

$.001$ ,  $\eta^2 = .173$ ), and suicidal ideation ( $F(2, 839) = 103.68$ ,  $p < .001$ ,  $\eta^2 = .198$ ).

Bonferroni post-hoc comparisons proved that the participants having low resilience reported higher depression significantly along with the health deterioration, and suicidal ideation instead of those having moderate or high resilience. Conversely, the participants having high resilience reported the lowest levels across such variables.

**Table 3: Group Differences in Depression, Health Deterioration, and Suicidal Ideation Across Resilience Levels.**

Predictor variables	Corrected R2	F	B	P
	.272	45,593		
Depression			-.037	.372
Deterioration of Health			-.461	.001***
Suicidal ideation			-.062	.066

Note: R2 Multiple square correlation; F=Fisher-Snedecor F;  $\beta$ =Beta;  $p=\alpha=0.05$ .

Table 3 summarizes the multiple linear regression results and predicted resilience from depression, health deterioration, as well as suicidal ideation. The overall model was found to be significant, as it explained 27.0% of the variance in the resilience ( $R^2 = .272$ ,  $F = 45.593$ ,  $p < .001$ ). Among predictors, just health deterioration predicted resilience significantly ( $\beta = -.461$ ,  $p < .001$ ), whereas depression ( $\beta = -.037$ ,  $p = .372$ ) and suicidal ideation ( $\beta = -.062$ ,  $p = .066$ ) were actually non-significant. Such results prove that worsening health is the main factor which negatively affects resilience in the sample.

#### 4. DISCUSSION

The purpose of this research was to evaluate the predictive power of resilience as a protective factor against depression, health deterioration, and suicidal ideation in university students.

Through statistical analysis, it is proved that resilience correlated negatively and significantly with depression ( $r = -.065$ ,  $p < .05$ ), poor health ( $r = -.191$ ,  $p < .01$ ), and suicidal ideation ( $r = -.110$ ,  $p < .01$ ). These data suggest that students with lower resilience skills are more likely to experience depressive symptoms, poor health, and suicidal ideation; the lower the resilience, the greater the risk. Those with low resilience are significantly more prone to suicidal thoughts, confirming the role of resilience as an essential protective factor for mental health.

These results are consistent with those reported by Navarrete-Lema and Rodríguez-Pérez (2022), who found a significant negative correlation ( $r = -0.252$ ,  $p = 0.012$ ) between resilience and suicidal ideation in university students, concluding that higher resilience scores are associated with lower suicidal ideation and better emotional management. Similar findings appear in González Aguilar (2025), who demonstrated a significant inverse relationship between resilience and symptoms of major depressive disorder ( $\beta = -0.4065$ ,  $p < 0.0001$ ). The results underscore the need to strengthen resilience as a protective factor for mental health, overall well-being, and suicide prevention in university students.

Regarding MANOVA and ANOVA, the analysis of variance showed significant differences between the resilience groups in depression, health impairment, and suicidal ideation ( $\chi^2 = .993$ ,  $F(7,833) = 16970.78$ ,  $p < .001$ ,  $\eta^2 = .993$ ). The ANOVA indicated differences in depression ( $F(2,839) = 83.63$ ,  $p < .001$ ,  $\eta^2 = .166$ ), health impairment ( $F(2,839) = 87.77$ ,  $p < .001$ ,  $\eta^2 = .173$ ), and suicidal ideation ( $F(2,839) = 103.68$ ,  $p < .001$ ,  $\eta^2 = .198$ ). These findings are consistent with Paniagua-Herranz et al. (2023), who found that resilience negatively predicts mental health problems and is inversely associated with depressive symptoms, demonstrating that differences in resilience levels translate into significant differences in depression.

The Bonferroni test revealed that the group with low resilience had significantly higher scores in depression, health impairment, and suicidal ideation compared to the groups with moderate and high resilience. In contrast, the high resilience group showed lower mean scores in these variables, results consistent with Cantero Walder, Vargas Burgos, and Bazán Flecha (2024), who reported an inverse relationship between resilience and suicidal ideation: low resilience increases vulnerability and explains why this group has higher scores in health impairment, depression, and suicidal ideation.

The results of the linear regression confirmed the predictive power of health deterioration on resilience (overall model explains 27.0%;  $\beta = -.461$ ;  $p < .001$ ). Depression and suicidal ideation did not show predictive significance in the resilience dimension. The Bonferroni test confirms that lower resilience corresponds to a higher average score in depression, health deterioration, and suicidal ideation; and higher resilience, to a lower average score in health deterioration and suicidal ideation, findings similar to Vizoso-Gómez and Arias-Gundín (2021), who related high resilience with the use of adaptive coping strategies and lower levels of depression and psychological distress, while low resilience is associated with a higher risk of health deterioration and suicidal ideation.

Evidence shows that resilience is a measurable variable with a direct impact on well-being: young people with low resilience report more depressive symptoms and psychological distress and are more prone to suicidal ideation; conversely, those with high resilience have an "internal shield" that is reflected in lower suicide risk scores and health deterioration. These data suggest that university prevention strategies should go beyond treating health deterioration, depression, and suicidal ideation, proactively focusing on intervention projects that strengthen coping skills and resilience, attacking the root of vulnerability to improve overall health indicators in the Mexican student population.

## 5. CONCLUSION

This study specified the important role of resilience in promoting the psychological and physical well-being of young adults. Findings prove that higher resilience is linked with lower levels of depression, less health deterioration, and reduced suicidal ideation. Analysis of the group differences even revealed that individuals having low resilience face significantly higher mental health challenges as well as physical health impairment in comparison to those having moderate or high resilience. Linear

regression results specified deterioration of health to be a significant predictor of resilience, which underscored the interconnection between the physical health perceptions and psychological resilience. Such results reinforce the protective function of resilience and recommend that interventions aimed at enhancing resilience can mitigate severe mental health outcomes and enhance overall well-being.

## 6. RECOMMENDATIONS

This research provides useful scientific evidence to promote intervention projects focused on mental health prevention, the development of coping strategies, and resilience to reduce health deterioration, depression, and suicidal ideation.

It is recommended to expand the sample to include a proportional representation of more universities in different Mexican states, as well as to implement a longitudinal design that allows students to be followed over time. This would be valuable for establishing causality and understanding how resilience develops or deteriorates during university studies, providing richer information for long-term prevention.

In short, the research establishes a basis for educational institutions to prioritize the intentional development of resilience as a fundamental preventive strategy, ensuring a healthier and more resilient future for university youth.

- **Early Detection and Timely Referral:** Implement a diagnostic assessment at the beginning of each school year, using validated instruments to measure resilience, depression, and the risk of suicidal ideation in the university student population.
- **Staged Intervention:**
  - **Level 1 (Low Resilience/High Risk):** Immediate referral to short-term individual or group therapy and continuous follow-up by the university mental health department.
  - **Level 2 (Moderate Resilience/Mild Symptoms):** Offer access to peer support groups and less intensive coping skills workshops.
- **Mental Health Awareness Campaign.**
  - **Promotion:** Ongoing campaigns that present resilience not as the absence of problems, but as the ability to seek help and use available resources.
  - **24/7 Resources:** Ensuring students have easy and anonymous access to crisis telephone lines or chat platforms for suicidal ideation, reinforcing resilience as a vital protective factor that includes asking for help.

- **Academic Stress Coping Workshop:** Practical sessions on time management techniques, flexible thinking (cognitive restructuring), and self-care to manage university pressure.
- **Emotional Regulation Workshop:** Workshops on recognizing and managing intense emotions to reduce rumination and depressive symptoms.
- **Comprehensive health workshop:** Given that deteriorating health was a key predictor, mandatory workshops on sleep hygiene, nutrition, and the importance of physical activity as direct coping and prevention tools for general malaise were included in the low-resilience group identified in the Bonferroni test.

## 7. IMPLICATIONS

The study contributes to the literature while clarifying the interaction between resilience, mental health, and physical health amongst the young adults. Moreover, it underscores the need for targeted interventions for strengthening resilience, which may have cascading impacts on reducing depressive symptoms, lessening the health

deterioration, and preventing suicidal ideation. Practitioners and policymakers must consider resilience and enhance programs like stress management training, cognitive-behavioural interventions, including social support initiatives, and be a part of comprehensive mental health promotion strategies.

## 8. LIMITATIONS

Despite valuable insights provided, this study had limitations as well. The cross-sectional design precludes causal inferences, and the reliance on self-report measures, which might introduce response biases. Future research must use longitudinal designs for exploring the temporal dynamics of resilience and its impacts on the mental and physical health outcomes. In addition, examining the potential moderators and mediators, like social support, coping strategies, and socioeconomic factors, can give deeper insights regarding the mechanisms underlying these relationships. Addressing these limitations will strengthen the robustness and generalizability of the findings.

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