

Exploring the mediation of psychological distress and depressive symptoms in the relationship between nightmares and suicidal ideation in adults

Explorando la mediación del malestar psicológico y los síntomas depresivos en la relación entre las pesadillas y la ideación suicida en adultos

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ABSTRACT

Introduction: Nightmares constitute a frequent parasomnia in adults in the general population and have been consistently associated with various indicators of psychological distress. Evidence suggests a significant relationship between nightmares and suicidal ideation; however, the psychological mechanisms underlying this association have not yet been fully clarified. **Objective:** To analyse the mediating role of psychological distress and depressive symptoms in the relationship between nightmares and suicidal ideation in adults in the general population. **Methodology:** A total of 507 Peruvian adults (66.7% women) participated in the study and completed a sociodemographic questionnaire and psychological assessment instruments. Structural equation modelling was used to conduct the mediation analysis. **Results:** Nightmares showed significant indirect associations with suicidal ideation through psychological distress ($\beta = 0.170$, $p = 0.007$) and depressive symptoms ($\beta = 0.234$, $p = 0.002$). The combined indirect effect was statistically significant ($\beta = 0.404$, $p < 0.001$), whereas the direct effect of nightmares on suicidal ideation was not significant ($\beta = 0.057$, $p = 0.515$). The total effect was statistically significant ($\beta = 0.460$, $p < 0.001$), supporting an indirect-only mediation pattern. **Conclusions:** The association between nightmares and suicidal ideation in adults is statistically accounted for by indirect pathways involving psychological distress and depressive symptoms, consistent with an indirect-only mediation pattern. Given the cross-sectional design, these findings should be interpreted as statistical associations rather than evidence of causal mechanisms.

KEYWORDS

sleep disorders

suicidal behaviour

mental health

adults

public health

RESUMEN

Introducción: Las pesadillas constituyen una parasomnia frecuente en adultos de la población general y se han asociado de manera consistente con diversos indicadores de malestar psicológico. La evidencia sugiere una relación significativa entre las pesadillas y la ideación suicida; sin embargo, los mecanismos psicológicos subyacentes a esta asociación no están plenamente esclarecidos. **Objetivo:** Analizar el papel mediador del malestar psicológico y los síntomas depresivos en la relación entre las pesadillas y la ideación suicida en adultos de la población general. **Metodología:** Participaron 507 adultos peruanos (66,7 % mujeres), que completaron un cuestionario sociodemográfico e instrumentos de evaluación psicológica. El análisis de mediación se realizó mediante modelado de ecuaciones estructurales. **Resultados:** Las pesadillas mostraron asociaciones indirectas significativas con la ideación suicida a través del malestar psicológico ($\beta = 0,170$; $p = 0,007$) y los síntomas depresivos ($\beta = 0,234$; $p = 0,002$). El efecto indirecto conjunto fue significativo ($\beta = 0,404$; $p < 0,001$), mientras que el efecto directo de las pesadillas sobre la ideación suicida no fue significativo ($\beta = 0,057$; $p = 0,515$). El efecto total también fue significativo ($\beta = 0,460$; $p < 0,001$), lo que respalda un patrón de mediación exclusivamente indirecta. **Conclusiones:** La asociación entre las pesadillas y la ideación suicida en adultos se explica principalmente por vías indirectas que involucran el malestar psicológico y los síntomas depresivos, lo que respalda un patrón de mediación exclusivamente indirecta. Dado el diseño transversal, los hallazgos deben interpretarse como asociaciones estadísticas y no como relaciones causales.

PALABRAS CLAVE

trastornos del sueño

conducta suicida

salud mental

adultos

salud pública

Introduction

Nightmares are a type of parasomnia characterized by intensely distressing dream experiences, accompanied by negative emotions such as fear, anguish, or terror, which often lead to abrupt awakenings and vivid, detailed recall of dream content (1). Unlike other sleep disorders, nightmares exert an emotional impact that extends beyond the nocturnal episode, affecting psychological functioning during wakefulness (2). Epidemiological evidence indicates that nightmares are relatively common in the population: up to 30% of psychiatric patients report significant nightmare-related problems, and in the general population approximately 1 in 20 individuals experiences weekly nightmares (3,4). In Latin America, similar findings have been reported, with sleep disorders broadly affecting approximately 25% of the population (5). Although traditionally studied in specific clinical contexts, recent research underscores that nightmares represent a relevant phenomenon among adults in the general population, given their association with psychological distress, impaired subjective well-being, and increased emotional vulnerability (1,2).

Beyond their immediate impact on sleep quality, nightmares have been associated with various mental health difficulties, including anxiety, psychological stress, difficulties with emotional regulation, and depressive symptoms (2,6,7). Research conducted across different populations, including adolescents, young adults, and adult clinical and community samples, has also documented associations between nightmares and suicidal ideation and behaviours (8,9). Although these findings suggest that nightmares may represent a relevant indicator of psychological vulnerability, the extent to which these associations generalize across age groups and population characteristics remains an important consideration. In particular, further research focusing on adults in the general population is needed to clarify the psychological variables associated with the relationship between nightmares and suicidal ideation (10).

Suicidal ideation is defined as the presence of thoughts, desires, or plans related to self-inflicted death and constitutes one of the earliest and most prevalent expressions of suicidal behaviour (11). At a global level, suicidal ideation represents a major public health concern, with substantial prevalence rates among adults in the general population, regardless of the presence of formal psychiatric diagnoses (12). Numerous studies have shown that suicidal ideation frequently co-occurs with other mental health problems, such as depression, anxiety, psychological distress, and sleep disturbances (9,13,14). In this regard, suicidal ideation emerges as the result of a complex interaction among emotional, cognitive, and contextual factors, highlighting the need to identify intermediate variables that help clarify the mechanisms through which different psychological stressors contribute to its development and maintenance (11).

From a theoretical perspective, the relationship between nightmares and suicidal ideation can be understood through cognitive-affective and transdiagnostic models of psychological distress. Contemporary suicide theories, such as the stress-diathesis model and integrative approaches to suicidal behaviour, posit that persistent exposure to emotionally aversive experiences increases psychological vulnerability and facilitates the emergence of suicidal thoughts (15). Nightmares, by involving repeated re-experiencing of threatening or traumatic content during sleep, may intensify negative emotional activation, disrupt affect regulation processes, and foster a sustained perception of lack of control (2). From this perspective, nightmares may act as chronic internal stressors that contribute to heightened distress and the consolidation of negative cognitive schemas, such as hopelessness and perceived entrapment, which have been identified as central mechanisms in the development of suicidal ideation (15). Thus, the impact of nightmares on suicidal ideation may not be direct in all cases but may be mediated by persistent emotional states, such as psychological distress and depressive symptoms, which progressively erode individuals' psychological resources (16,17).

In this context, psychological distress is conceptualized as a state of persistent emotional discomfort characterized by feelings of tension, overload, and perceived inability to cope with environmental demands (18). Among adults in the general population, distress is highly prevalent and has been associated with a broad range of psychological difficulties, including sleep problems, impaired social and occupational functioning, and increased risk of psychopathology (19,20). From a transdiagnostic perspective, distress has been proposed as a central explanatory mechanism linking diverse mental health problems by intensifying emotional reactivity and reducing coping resources (20,21). In the context of nightmares, distress may amplify the emotional impact of negative dream experiences by promoting rumination, hypervigilance, and emotional exhaustion, thereby increasing the likelihood of suicidal ideation (1).

Complementarily, depressive symptoms, including persistent sadness, anhedonia, fatigue, feelings of worthlessness, and hopelessness, constitute one of the most robust risk factors for suicidal ideation in adults (22). Even when they do not meet formal diagnostic criteria, these symptoms are common in the general population and are associated with significant deterioration in psychological well-being (23). Previous studies conducted in different populations, including adolescents and young adults, have suggested that psychological distress and depressive symptoms may contribute to understanding associations between psychological stressors and suicidal outcomes (15-17,23). Although these findings provide a relevant

theoretical basis, their applicability to adults in the general population requires further examination. Within this framework, the present study investigates whether psychological distress and depressive symptoms statistically mediate the association between nightmares and suicidal ideation in an adult community sample.

Given the high prevalence of nightmares, psychological distress, depressive symptoms, and suicidal ideation among adults in the general population, it is essential to further examine the psychological mechanisms linking these variables. The relevance of the present study lies in its contribution to understanding the mediating processes through which nightmares may be associated with suicidal ideation via psychological distress and depressive symptoms. Accordingly, the objective of this research is to explore the mediating role of psychological distress and depressive symptoms in the relationship between nightmares and suicidal ideation among adults in the general population, providing empirical evidence to strengthen existing theoretical models and inform early prevention and intervention strategies in mental health.

Methodology

Participants

This study employed a cross-sectional analytical design to examine a parallel multiple-mediator model of the association between nightmares and suicidal ideation. Data were collected through an online survey conducted between January and April 2025 using Google Forms. Participants were recruited through non-probability convenience sampling, with the questionnaire distributed via the researchers' social media channels, primarily Facebook and WhatsApp. Consequently, participation depended on access to digital platforms and exposure to the survey invitation, rather than on a probability-based selection procedure. The survey invitation provided information about the study objectives, the anonymity of responses, the academic use of the data, data handling procedures, and informed consent. Online surveys enable wider access to the target population, facilitate systematic control of responses, offer multiple dissemination channels, and constitute a cost-effective and efficient method of data collection (24). No financial incentives were provided to participants.

Eligibility criteria, exclusion procedures, and data screening were considered before conducting the structural equation modeling analyses. The inclusion criteria were as follows: (a) being between 18 and 60 years of age, (b) residing in Metropolitan Lima, and (c) providing informed consent. The exclusion criteria were: (a) having an intellectual developmental disorder or neurological disorder that could interfere with the ability to complete the survey, (b) missing responses in the sociodemographic section or the psychological assessment instruments, and (c) voluntarily discontinuing participation in the survey. At the end of data collection, no incomplete questionnaires were recorded. Furthermore, no duplicate, inconsistent, or potentially invalid responses were identified.

A total of 507 Peruvian adults in the general population took part in the study. Most participants were women (66.7%), with a mean age of 33 years (SD = 12.05; range 18-60 years). Additionally, 72.4% reported being employed at the time of the survey, whereas 27.6% were unemployed. Regarding marital status, the majority identified as single (72%) or married (25%), with smaller proportions reporting being divorced (2.8%) or widowed (0.2%). Most participants resided in urban areas (95.9%). In terms of educational level, the largest proportion had incomplete university education (32.7%), followed by those with completed university education (26.2%) and completed technical training (12.2%).

Measures

Demographic Information. Sociodemographic information was collected using a brief questionnaire, which included questions on gender, age, employment status, marital status, area of residence, and level of education.

Nightmare Disorder Index (NDI). The NDI is a brief instrument consisting of five items designed to assess the symptoms of nightmare disorder in accordance with DSM-5 diagnostic criteria. The NDI items evaluate the frequency and characteristics of nightmares, as well as the distress and impairment associated with them over the past month, with scores ranging from 0 to 4. The total score ranges from 0 to 20, where higher scores indicate greater severity of nightmare disorder. The adapted Peruvian version was used, and the scale demonstrated acceptable internal consistency in the present sample ($\omega = 0.84$) (6).

Frequency of Suicidal Ideation Inventory (FSII). This inventory assesses the frequency of suicidal ideation over the past year using five items. Items are rated on a Likert scale ranging from 1 (never) to 5 (almost every day). The total score ranges from 5 to 25, with higher scores indicating greater frequency of suicidal ideation. The adapted Peruvian version was used, and the scale demonstrated acceptable internal consistency in the present sample ($\omega = 0.96$) (25).

Perceived Stress Scale (PSS). This 12-item scale assesses perceived stress over the past month and comprises two dimensions: eustress and distress. It includes positively and negatively worded statements regarding stressful situations or life events, rated on a Likert-type scale ranging from 0 (never) to 4 (very often). The Peruvian adaptation was used (26). In the present study, only the psychological distress subscale comprised five items, each rated from 0 (never) to 4 (very often), yielding a possible summed score ranging from 0 to 20. In the present study, psychological distress was operationalized

through this subscale, which captures perceived emotional strain and difficulties coping with demands rather than the full range of psychological distress manifestations. This selection was conceptually aligned with the proposed model, which distinguishes psychological distress, understood as perceived emotional strain and difficulty coping with demands, from depressive symptoms, assessed separately using the PHQ-2. The psychological distress subscale demonstrated adequate internal consistency in the present sample ($\omega = 0.86$).

Patient Health Questionnaire-2 (PHQ-2). The PHQ-2 is a brief two-item questionnaire that assesses depressive symptoms over the past two weeks. Each item is rated on a four-point scale from 0 (not at all) to 3 (nearly every day). The total score ranges from 0 to 6, with higher scores indicating greater depressive symptomatology. The Peruvian adaptation was used, and this study reported good reliability ($\omega = 0.73$) (27).

Statistical Analysis

Statistical analyses were conducted using R version 4.5.1. Structural equation modeling (SEM) analyses were performed using the lavaan package. In the initial phase, a descriptive analysis was performed by calculating frequencies and percentages to describe the characteristics of the sample. Measures of central tendency and variability, specifically the mean and standard deviation, were also computed for the psychological variables. Associations between variables were examined using Pearson’s correlation coefficient, and effect sizes were interpreted following the criteria proposed by Funder and Ozer (28): small = 0.10, medium = 0.20, large = 0.30, and very large = 0.40.

In the second phase, a parallel multiple-mediator model was estimated using structural equation modeling (SEM) with maximum likelihood estimation and bootstrap standard errors based on 10,000 resamples (29). Psychological distress and depressive symptoms were specified as simultaneous mediators of the association between nightmares and suicidal ideation, allowing their residuals to covary. Two specific indirect effects were estimated, one through psychological distress and the other through depressive symptoms, together with the combined indirect effect, direct effect, and total effect. Model fit was evaluated using the Comparative Fit Index ($CFI > 0.90$), Tucker-Lewis Index ($TLI > 0.90$), Root Mean Square Error of Approximation ($RMSEA < 0.08$), and Standardized Root Mean Square Residual ($SRMR < 0.08$) (30). Standardized regression coefficients (β) were examined to assess the direction and magnitude of the associations between variables (31), while confidence intervals and statistical significance were considered to evaluate the precision and statistical evidence of the estimated effects.

Ethical Considerations

The research adhered to international and national ethical standards in the field of psychology. Participants signed and provided informed consent. Participation was voluntary, and responses were collected anonymously. Participants were informed about the study objectives, the academic use of the data, and the procedures for handling the information collected. This approach is consistent with ethical considerations concerning transparency and the avoidance of deception in psychological research, as discussed (32). In addition, the study was reviewed and approved by the ethics committee of the Universidad Privada Norbert Wiener, under registration No. 0833-2024-CIEIC-UPNW.

Results

Descriptive analysis

As shown in Table 1, psychological distress had the highest mean score ($M = 9.46$), whereas the lowest mean was found for depressive symptoms ($M = 1.20$). Regarding variability, the highest standard deviation was observed for suicidal ideation ($SD = 4.08$), while the lowest was found for depressive symptoms ($SD = 1.46$). In addition, all correlations were positive and statistically significant ($p < 0.001$), with coefficients ranging from $r = 0.30$ to $r = 0.49$, indicating varying magnitudes of association according to the criteria proposed by Funder and Ozer (28).

TABLE 1. MEASURES OF CENTRAL TENDENCY, DISPERSION, AND CORRELATION MATRIX.						
	M	SD	N	SI	PD	DS
Nightmares	3.43	3.81	-			
Suicidal ideation	7.32	4.08	0.41**	-		
Psychological Distress	9.46	2.79	0.39**	0.30**	-	
Depressive symptoms	1.20	1.46	0.49**	0.48**	0.34**	-

** $p < 0.001$, M = mean, SD = standard deviation, N = nightmares, SI = suicidal ideation, PD = psychological distress, DS = depressive symptoms.

Mediation analysis

The parallel multiple-mediator model included psychological distress and depressive symptoms as simultaneous mediators of the association between nightmares and suicidal ideation. The model yielded a CFI = 0.921, TLI = 0.906, RMSEA = 0.089 (90% CI [0.081, 0.096]), and SRMR = 0.061, indicating acceptable incremental fit indices but a less favorable RMSEA value.

Nightmares were positively associated with psychological distress ($\beta = 0.633$, $p < 0.001$) and depressive symptoms ($\beta = 0.641$, $p < 0.001$). Both psychological distress ($\beta = 0.268$, $p = 0.005$) and depressive symptoms ($\beta = 0.365$, $p < 0.001$) were positively associated with suicidal ideation. The specific indirect effects through psychological distress ($\beta = 0.170$, $p = 0.007$) and depressive symptoms ($\beta = 0.234$, $p = 0.002$) were statistically significant. The combined indirect effect was also significant ($\beta = 0.404$, $p < 0.001$), whereas the direct effect was not statistically significant ($\beta = 0.057$, $p = 0.515$). The total effect was significant ($\beta = 0.460$, $p < 0.001$) (Table 2). These results are consistent with an indirect-only mediation pattern involving two parallel pathways.

TABLE 2. DIRECT, SPECIFIC INDIRECT, COMBINED INDIRECT, AND TOTAL EFFECTS OF NIGHTMARES ON SUICIDAL IDEATION IN THE PARALLEL MULTIPLE-MEDIATOR MODEL.							
Type	Effect	Estimate	SE	95% CI		β	p
				Lower	Upper		
Indirect	N $\Rightarrow$ PD $\Rightarrow$ SI	0.207	0.077	0.066	0.366	0.170	0.007
Indirect	N $\Rightarrow$ DS $\Rightarrow$ SI	0.285	0.091	0.131	0.493	0.234	0.002
Total indirect	Sum of the two specific indirect effects	0.492	0.094	0.330	0.701	0.404	< 0.001
Variables	N $\Rightarrow$ PD	0.746	0.072	0.611	0.893	0.633	< 0.001
	N $\Rightarrow$ DS	0.661	0.072	0.523	0.807	0.641	< 0.001
	PD $\Rightarrow$ SI	0.278	0.099	0.088	0.477	0.268	0.005
	DS $\Rightarrow$ SI	0.432	0.130	0.204	0.718	0.365	< 0.001
Direct	N $\Rightarrow$ SI	0.069	0.106	-0.153	0.269	0.057	0.515
Total	N $\Rightarrow$ SI	0.561	0.080	0.410	0.726	0.460	< 0.001

N = nightmares, SI = suicidal ideation, PD = psychological distress, DS = depressive symptoms, SE = standard error, CI = confidence interval for the unstandardized coefficient, β = standardized regression coefficient, p = p value.

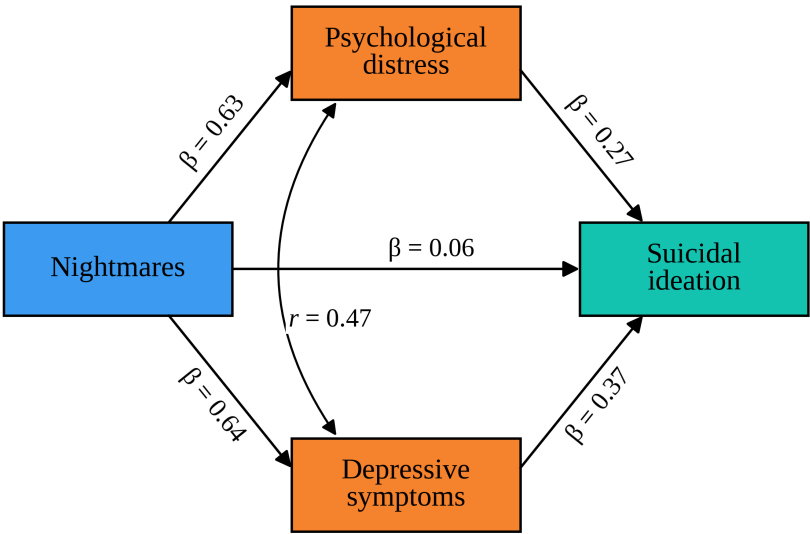


FIGURE 1
Mediation model between nightmares, psychological distress, depressive symptoms, and suicidal ideation in adults.

Discussion

This study examined the mediating role of psychological distress and depressive symptoms in the relationship between nightmares and suicidal ideation among adults in the general population. This objective is supported by previous research documenting associations between nightmares and psychological difficulties across clinical and community populations, including studies involving adolescents, young adults, and adults (1,2,7). Nevertheless, differences in age and population characteristics should be considered when interpreting the applicability of these findings to adults in the general population.

In parallel, suicidal ideation constitutes a major public health problem among adults in the general population, even in the absence of diagnosed mental disorders (11,12). The literature has consistently documented the co-occurrence of suicidal ideation with sleep disturbances, psychological distress, and depressive symptoms (9,14). However, there remains a need to better understand the intermediate psychological mechanisms through which adverse nocturnal experiences, such as nightmares, are linked to suicidal thoughts during wakefulness, particularly in adults. In this context, the mediation approach adopted in the present study responds to the need to move beyond bivariate associations toward more complex explanatory models that identify key emotional processes involved in the development of suicidal ideation. The findings provide empirical evidence of significant indirect associations between nightmares and suicidal ideation through psychological distress and depressive symptoms. The absence of a statistically significant direct effect after accounting for both mediators is consistent with an indirect-only mediation pattern.

The results revealed a significant indirect association between nightmares and suicidal ideation through psychological distress and depressive symptoms, whereas the direct effect was not statistically significant after accounting for both mediators. This pattern is broadly consistent with previous studies reporting associations between nightmares, depressive symptoms, and suicidal behaviours across different age groups, including adolescents and young adults (8,10,17), as well as research emphasizing the relevance of psychological distress in mental health difficulties (20,21). These findings suggest that the relationship between nightmares and suicidal ideation may be better understood by considering the psychological difficulties associated with adverse nocturnal experiences. Nevertheless, the absence of a significant direct effect does not establish that nightmares have no independent association with suicidal ideation, and longitudinal studies are needed to clarify the temporal relationships among these variables.

The observed parallel mediation pattern is particularly relevant, as it suggests that psychological distress and depressive symptoms may represent distinct but related pathways in the association between nightmares and suicidal ideation. While distress reflects a generalized emotional response to demands perceived as overwhelming, depressive symptoms involve patterns of sadness, hopelessness, anhedonia, and self-devaluation (18,23). The significant indirect effects through both mediators, together with the absence of a statistically significant direct effect, suggest that the association between nightmares and suicidal ideation is primarily accounted for by these psychological difficulties within the proposed model. Nevertheless, these findings do not rule out the possible contribution of other psychological factors, which should be examined in future research.

From the perspective of cognitive-affective and transdiagnostic models of suicidal behaviour, these findings can be interpreted within the stress-diathesis framework, which posits that repeated exposure to emotional stressors increases psychological vulnerability and facilitates suicidal ideation when coping resources are compromised (15). Within this framework, nightmares may be conceptualized as chronic internal stressors, as they involve persistent re-experiencing of emotionally threatening content during sleep.

The significant indirect associations observed in the present study may be interpreted in light of cognitive-affective and transdiagnostic perspectives. From a theoretical standpoint, psychological distress could reflect broader emotional difficulties associated with nightmares, potentially involving processes such as heightened emotional reactivity, hypervigilance, or difficulties coping with daily demands (18,19). Similarly, depressive symptoms may be related to negative cognitive patterns, including hopelessness and loss of meaning, which have been discussed in previous research as relevant to suicidal ideation (16,22). However, these specific psychological processes were not directly assessed in the present study and should therefore be considered hypothetical explanations rather than empirically established mechanisms. The observed indirect-only mediation pattern indicates that psychological distress and depressive symptoms statistically account for the association between nightmares and suicidal ideation within the proposed model. Future longitudinal studies incorporating direct measures of emotional regulation, rumination, and related cognitive processes are needed to examine these theoretical explanations more thoroughly.

Regarding theoretical implications, the findings are consistent with integrative and transdiagnostic perspectives suggesting that psychological distress and depressive symptoms may contribute to understanding the association between nightmares and suicidal ideation. The observed indirect-only mediation pattern provides statistical support for the relevance of these

two variables within the proposed model, but it does not establish the psychological processes through which these associations arise. Other mechanisms discussed in the literature, such as emotional dysregulation, intrusive thoughts, and perceived threat, remain plausible theoretical explanations that require direct empirical examination. Consequently, the present findings should be regarded as contributing to the formulation of explanatory hypotheses rather than confirming specific causal mechanisms. Longitudinal and multimethod research is needed to further examine these possibilities.

From a practical perspective, the results have clear implications for mental health assessment, prevention, and intervention among adults. First, they suggest the need to systematically assess nightmares in both community and clinical settings, particularly among adults reporting high levels of distress or subclinical depressive symptoms. Brief and validated instruments, such as those used in this study, may facilitate early identification of individuals at risk. Second, the findings suggest that sleep disturbances, psychological distress, and depressive symptoms may warrant joint consideration in mental health assessment and intervention planning. Although therapeutic approaches targeting nightmares and emotional difficulties may be clinically relevant, the present study did not evaluate intervention outcomes. Therefore, further longitudinal and intervention research is needed to determine whether addressing these factors contributes to reductions in suicidal ideation. In the Peruvian context, these findings are particularly relevant given limited access to specialized mental health services and the high prevalence of psychological distress among urban adult populations. Identifying modifiable mediating variables, such as distress and depressive symptoms, offers an opportunity to design low-cost preventive interventions applicable in primary care and community mental health programmes.

Among the main strengths of the study is the use of a dual-mediator model, which allowed the simultaneous examination of complementary emotional mechanisms and advanced a more complex understanding of the phenomenon under investigation. Additionally, the adequate sample size increased the stability of the estimates and the statistical power of the analyses. Nevertheless, the study has several limitations. First, the use of non-probability convenience sampling through Facebook and WhatsApp limits the representativeness and generalizability of the findings. This recruitment strategy may have favored younger, more educated, urban, and digitally connected individuals, potentially underrepresenting adults with limited internet access or lower levels of digital engagement. Future studies should employ probability-based sampling strategies and include participants with greater sociodemographic and geographic diversity. Second, the cross-sectional design and the differences in the assessment time frames limit the interpretation of the mediation model. Suicidal ideation was assessed over the past year, nightmares and psychological distress over the past month, and depressive symptoms over the past two weeks. Consequently, the temporal sequence assumed in the mediation model cannot be established, and the observed indirect effects should be interpreted as statistical associations rather than evidence of causal mechanisms. Future longitudinal studies using consistent assessment periods are needed to clarify the temporal relationships among these variables. Additionally, the overrepresentation of female participants and urban residents may have introduced sampling bias; future studies should ensure a more balanced distribution by sex and geographic origin. The reliance on self-report measures and online data collection may have increased social desirability bias; incorporating clinical interviews or multimethod assessments would be advisable. Furthermore, psychological distress was assessed using only the distress subscale of the PSS, which captures a specific dimension of the broader construct. Similarly, depressive symptoms were measured using the two-item PHQ-2, a brief screening instrument that does not provide a comprehensive assessment of depressive symptomatology. These measurement limitations should be considered when interpreting the findings. Additionally, the model did not account for potentially relevant confounding variables, particularly trauma exposure and post-traumatic stress symptoms, which may be associated with both nightmares and suicidal ideation. Although age and sex were collected, they were not included as covariates in the structural equation model. Consequently, residual confounding cannot be ruled out, and the observed associations should be interpreted with caution. Future studies should incorporate these variables to better assess the robustness of the proposed mediation pathways. Finally, the study did not directly assess several psychological processes discussed as potential explanatory mechanisms, including emotional dysregulation, intrusive thoughts, perceived threat, rumination, and loss of meaning. Consequently, their possible contribution to the observed associations remains theoretical and should be examined in future studies using appropriate measures and longitudinal designs.

The present study provides empirical evidence of a significant indirect association between nightmares and suicidal ideation through psychological distress and depressive symptoms among adults in the general population. The absence of a statistically significant direct effect after accounting for both mediators is consistent with an indirect-only mediation pattern, suggesting that these emotional difficulties statistically account for part of the association between nightmares and suicidal ideation within the proposed model, without establishing causal mechanisms. These findings highlight the importance of considering psychological distress and depressive symptoms when examining the association between sleep disturbances and suicidal thoughts. Integrating these variables into explanatory models may contribute to a more comprehensive understanding of suicidal ideation and inform the development of prevention and intervention strategies

targeting adult populations. However, the cross-sectional design and differing assessment time frames prevent conclusions regarding temporal ordering or causal mechanisms. Longitudinal studies are needed to determine whether the proposed indirect associations are supported by prospective evidence.

Editorial note

The opinions expressed in this article, as well as the methodological approach and results presented, are the sole responsibility of the authors. This work was reviewed and approved by external reviewers as part of the editorial process, but does not necessarily reflect the official position of the journal, its editorial committee, or its editor-in-chief.

Author contributions

JB-CH, TC-R, DV-P, ES-S, DB-T, and GR-A participated in the conception and design of the work, data analysis and interpretation, drafting of the manuscript, critical revision of the manuscript, and approval of the final version.

Data availability

Data are available upon request to the corresponding author. Jonatan Baños-Chaparro. Email: jonatan.banos@uwiener.edu.pe

Reviewer Comments

The comments and recommendations issued during the peer review process are available at the following link: [Dictamen 775](#)

References

1. Garriques VR, Dhruve DM, Nadorff MR. Nightmare disorder. *Sleep Med Clin*. 2024;19(1):111-119. <https://doi.org/10.1016/j.jsmc.2023.10.011>
2. Tousignant OH, Glass DJ, Suvak MK, Fireman GD. Nightmares and nondisturbed dreams impact daily change in negative emotion. *Dreaming*. 2022;32(3):292-313. <https://doi.org/10.1037/drm0000213>
3. Li SX, Zhang B, Li AM, Wing YK. Prevalence and correlates of frequent nightmares: a community-based 2-phase study. *Sleep*. 2010;33(6):774-780. <https://doi.org/10.1093/sleep/33.6.774>
4. Swart ML, van Schagen AM, Lancee J, van den Bout J. Prevalence of nightmare disorder in psychiatric outpatients. *Psychother Psychosom*. 2013;82(4):267-268. <https://doi.org/10.1159/000343590>
5. Etindele Sosso FA, Torres Silva F, Queiroz Rodrigues R, Carvalho MM, Zoukal S, Cordova Zarate G. Prevalence of sleep disturbances in Latin American populations and its association with their socioeconomic status: a systematic review and a meta-analysis. *J Clin Med*. 2023;12(24):7508. <https://doi.org/10.3390/jcm12247508>
6. Baños-Chaparro J, Franco-Jimenez A, Caycho-Rodríguez T, Valencia-Pecho D, Sarmiento-Suarez E, Bernabel-Tarazona D, et al. Spanish translation and psychometric evidence of the Nightmare Disorder Index (NDI) in adults from the general population. *Eur J Investig Health Psychol Educ*. 2025;15(11):220. <https://doi.org/10.3390/ejihpe15110220>
7. Wong SMY, Hui CLM, Cheung VKW, Suen YN, Chan SKW, Lee EHM, et al. Prevalence of frequent nightmares and their prospective associations with 1-year psychiatric symptoms and disorders and functioning in young adults: a large-scale epidemiological study in Hong Kong. *Sleep*. 2023;46(4):zsac296. <https://doi.org/10.1093/sleep/zsac296>
8. Fernandes SN, Zuckerman E, Miranda R, Baroni A. When night falls fast: sleep and suicidal behavior among adolescents and young adults. *Child Adolesc Psychiatr Clin N Am*. 2021;30(1):269-282. <https://doi.org/10.1016/j.chc.2020.08.009>
9. Pigeon WR, Bishop TM, Titus CE. The relationship between sleep disturbance, suicidal ideation, suicide attempts, and suicide among adults: a systematic review. *Psychiatr Ann*. 2016;46(3):177-186. <https://doi.org/10.3928/00485713-20160128-01>
10. Youngren WA, Bishop T, Carr M, Mattera E, Pigeon W. Nightmare types and suicide. *Dreaming*. 2024;34(1):1-7. <https://doi.org/10.1037/drm0000261>
11. Jobes DA, Mandel AA, Kleiman EM, Bryan CJ, Johnson SL, Joiner TE. Facets of suicidal ideation. *Arch Suicide Res*. 2024;28(4):1263-1278. <https://doi.org/10.1080/13811118.2023.2299259>
12. World Health Organization. Suicide. Geneva: WHO; 2025. [URL](#)
13. Gasnier M, Léon C, Beck F, Jollant F. Changes in rates and risk factors of suicidal ideation from 2010 to 2023: a national survey in the French adult general population. *J Affect Disord*. 2026;396:120844. <https://doi.org/10.1016/j.jad.2025.120844>
14. Renaud J, MacNeil SL, Vijayakumar L, Spodenkiewicz M, Daniels S, Brent DA, et al. Suicidal ideation and behavior in youth in low- and middle-income countries: a brief review of risk factors and implications for prevention. *Front Psychiatry*. 2022;13:1044354. <https://doi.org/10.3389/fpsy.2022.1044354>
15. Díaz-Oliván I, Porras-Segovia A, Barrigón ML, Jiménez-Muñoz L, Baca-García E. Theoretical models of suicidal behaviour: a systematic review and narrative synthesis. *Eur J Psychiatry*. 2021;35(3):181-192. <https://doi.org/10.1016/j.ejpsy.2021.02.002>

16. Andrews S, Hanna P. Investigating the psychological mechanisms underlying the relationship between nightmares, suicide and self-harm. *Sleep Med Rev.* 2020;54:101352. <https://doi.org/10.1016/j.smrv.2020.101352>
17. Liu X, Yang Y, Liu ZZ, Jia CX. Longitudinal associations of nightmare frequency and nightmare distress with suicidal behavior in adolescents: mediating role of depressive symptoms. *Sleep.* 2021;44(1):zsaal30. <https://doi.org/10.1093/sleep/zsaa130>
18. Ridner SH. Psychological distress: concept analysis. *J Adv Nurs.* 2004;45(5):536-545. <https://doi.org/10.1046/j.1365-2648.2003.02938.x>
19. Li YL, Hsu YC, Lin CY, Wu JL. Sleep disturbance and psychological distress in adult patients with tinnitus. *J Formos Med Assoc.* 2022;121(5):995-1002. <https://doi.org/10.1016/j.jfma.2021.07.022>
20. Vartiö S, Kiviruusu O, Piirtola M, Kaprio J, Korhonen T, Marttunen M, et al. Factors contributing to psychological distress in the working population, with a special reference to gender difference. *BMC Public Health.* 2021;21(1):611. <https://doi.org/10.1186/s12889-021-10560-y>
21. Mason Stephens J, Iasiello M, Ali K, van Agteren J, Fassnacht DB. The importance of measuring mental wellbeing in the context of psychological distress: using a theoretical framework to test the dual-continua model of mental health. *Behav Sci (Basel).* 2023;13(5):436. <https://doi.org/10.3390/bs13050436>
22. Riera-Serra P, Navarra-Ventura G, Castro A, Gili M, Salazar-Cedillo A, Ricci-Cabello I, et al. Clinical predictors of suicidal ideation, suicide attempts and suicide death in depressive disorder: a systematic review and meta-analysis. *Eur Arch Psychiatry Clin Neurosci.* 2024;274(7):1543-1563. <https://doi.org/10.1007/s00406-023-01716-5>
23. Kang J, Jang SN, Kim HS. What differentiates suicidal ideation from depressive symptoms amongst Korean young adults aged 20-39 years? *Int Rev Psychiatry.* 2024;36(4-5):315-325. <https://doi.org/10.1080/09540261.2024.2311102>
24. Gosling SD, Mason W. Internet research in psychology. *Annu Rev Psychol.* 2015;66:877-902. <https://doi.org/10.1146/annurev-psych-010814-015321>
25. Baños-Chaparro J, Ynquillay-Lima P, Lamas-Delgado F, Fuster-Guillen FG. Inventario de Frecuencia de Ideación Suicida: evidencias psicométricas en adultos peruanos. *Revista Información Científica.* 2021;100(4):e3507. [URL](https://doi.org/10.1016/j.ric.2021.100.4.3507)
26. Boluarte-Carbajal A, Salazar-Conde M, Alata Vasquez S, Zegarra-López A. Psychometric review of the perceived stress scale under CFA and Rasch models in Lima, Peru. *Front Psychol.* 2023;14:1160466. <https://doi.org/10.3389/fpsyg.2023.1160466>
27. Villarreal-Zegarra D, Barrera-Begazo J, Otazú-Alfaro S, Mayo-Puchoc N, Bazo-Alvarez JC, Huarcaya-Victoria J. Sensitivity and specificity of the Patient Health Questionnaire (PHQ-9, PHQ-8, PHQ-2) and General Anxiety Disorder scale (GAD-7, GAD-2) for depression and anxiety diagnosis: a cross-sectional study in a Peruvian hospital population. *BMJ Open.* 2023;13(9):e076193. <https://doi.org/10.1136/bmjopen-2023-076193>
28. Funder DC, Ozer DJ. Evaluating effect size in psychological research: sense and nonsense. *Adv Methods Pract Psychol Sci.* 2019;2(2):156-168. <https://doi.org/10.1177/2515245919847202>
29. Muthén LK, Muthén BO. *Mplus user's guide.* 8th ed. Los Angeles (CA): Muthén & Muthén; 2017. [URL](https://www.statmodel.com/usersguide/)
30. Jordan Muiños FM. Valor de corte de los índices de ajuste en el análisis factorial confirmatorio. *Psocial.* 2021;7(1):66-71. [URL](https://doi.org/10.1016/j.psoc.2021.07.001)
31. Ferguson CJ. An effect size primer: a guide for clinicians and researchers. In: Kazdin AE, editor. *Methodological issues and strategies in clinical research.* 4th ed. Washington (DC): American Psychological Association; 2016. p. 301-310. <https://doi.org/10.1037/14805-020>
32. Hilbig BE, Thielmann I, Böhm R. Bending our ethics code: avoidable deception and its justification in psychological research. *Eur Psychol.* 2022;27(1):62-70. <https://doi.org/10.1027/1016-9040/a000431>