

Article

Depressive Symptoms and Suicide Risk: A Moderate Mediation

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ABSTRACT

Background/aim: Although suicide is a multidimensional problem, depression has been established as one of the risk factors. In addition, it has also been shown that suicide risk and depression share common factors, among which rumination stands out. This study aims to explore how the relationship between depressive symptoms and suicidal risk is mediated by rumination and moderated by social support, considering sex as a control variable. **Method:** The sample included 1002 participants (34.13 % men) aged 18-75 years ($M = 34.7$, $SD = 13.61$). A moderated mediation analysis was carried out for depressive symptomatology as an independent variable, the rumination as a mediator, the social support as moderator and the risk of suicide, as a dependent variable (dependent variable). Sex was entered as a covariate. **Results:** Analyses revealed that the relationship between depression and suicidal risk is mediated by rumination and moderated by high levels of social support. **Conclusions:** It is essential to design preventive interventions against suicide that include social support networks and emotional regulation strategies focused on rumination management.

Síntomas Depresivos y Riesgo de Suicidio: Una Mediación Moderada

RESUMEN

Antecedentes/objetivo: Aunque el suicidio es un problema multidimensional, se ha establecido que la depresión es uno de los factores de riesgo. Además, también se ha demostrado que el riesgo de suicidio y la depresión comparten factores comunes, entre los que destaca la rumiación. Este estudio pretende explorar cómo la relación entre síntomas depresivos y riesgo suicida está mediada por la rumiación y moderada por el apoyo social, considerando el sexo como variable de control. **Método:** Participaron en el estudio 1002 personas (34.13% hombres) con edades comprendidas entre 18 y 75 años ($M = 34.7$, $DT = 13.61$). Se ejecutó un análisis de mediación moderada para la sintomatología depresiva como variable independiente, la rumiación como mediadora, el apoyo social como moderador y el riesgo de suicidio, como variable dependiente (variable dependiente). El sexo se introdujo como covariable. **Resultados:** Los resultados revelaron que la relación entre depresión y riesgo suicida está mediada por la rumiación y moderada por altos niveles de apoyo social. **Conclusiones:** Es fundamental diseñar intervenciones preventivas contra el suicidio que incluyan redes de apoyo social y estrategias de regulación emocional centradas en el manejo de la rumiación.

Palabras clave:

Suicidio
Depresión
Rumiación
Apoyo social
Mediación

Introduction

Suicide is a complex issue that has been the subject of numerous studies and research over the years. It is a major mental health problem that kills 726,000 people a year, with many more attempting suicide, and in 2021, it was the third leading cause of death among people aged 15-29 years worldwide (World Health Organization [WHO], 2024). Moreover, it is a public issue that affects individuals, families, and society at large, resulting in significant annual costs associated with mortality and disability (Stone et al., 2021). Despite extensive research and available data on suicidal behavior, significant gaps persist in policy, research, prevention, and clinical practice. For example, in Spain, 4,097 people lost their lives by suicide, assuming an increase of 2.3% over the previous year and ranking as the leading cause of death (National Institute of Statistics, 2023), which may lead to a debate on their effectiveness and the mental health status of the population.

Mental health diagnoses, and especially depression, have been related to suicide. Thus, prior research has indicated that depression significantly increases the risk of suicide, with the severity of depressive symptoms strongly linked to suicidal tendencies (Li et al., 2020). However, there are differences between males and women. For example, in a sample diagnosed with depression, while women have higher rates of somatization, males have more severe suicide ideation and a more significant number of suicide risk factors (Olgiati et al., 2024). Despite these sex differences, the fact that depression is a risk factor for suicide (Fredriksen et al., 2022; Toro et al., 2021) leads one to believe that there is a shared variance.

According to the transdiagnostic model, there are underlying risk factors for mental health problems (Sandin et al., 2012), and one of them is rumination, a factor common to both depression and suicide risk (Tang et al., 2021). Rumination is a maladaptive cognitive response and coping style to distressing events that involves focusing on one's emotions and maladaptive analysis of the causes and effects of negative emotions (Nolen-Hoeksema, 1991). This variable is not only a transdiagnostic factor of emotional disorders (Antuña-Cambor et al., 2024) but also a mediating factor between depression and suicide (Hensel et al., 2024; Liu et al., 2023). However, some authors (e.g. Eisma et al., 2015; Yang et al., 2023) have shown that rumination is not always negative, proposing two types: adaptive, more oriented to private self-awareness and reflection, and maladaptive. To this end, instruments such as the Rumination Responses Scale (RRS), which considers both components, have been developed (Hervás, 2008; Nolen-Hoeksema, 1991).

Although the most studied transdiagnostic factors have been cognitive (Antuña-Cambor et al., 2024), other social variables are relevant to the origin of mental health problems (Milicev et al., 2023). Among these factors, social support is highlighted. Social support arises from caring expressions and practical assistance extended by family members, friends, or a significant partner (Silva et al., 2023). On the one hand, lower rates of social support have been related to suicide risk (Silva et al., 2023). In this sense, one of the more studied models was the interpersonal theory of suicide presented by Joiner (2005) and further expanded upon by Van Orden and colleagues (Joiner et al., 2017; Van Orden et al., 2010). This theory states that suicide attempts occur when there is a conjunction of two variables: perceived burdensomeness and thwarted belongingness.

These two interconnected factors contribute to an individual's sense of being a burden on others and experiencing a disconnection in their interpersonal relationships, either through a lack of closeness or a perceived absence of reciprocal care. Previous studies have shown that social support can be a protective factor against suicide (Matel-Anderson et al., 2019; Silva et al., 2023), and perceived social support or the perception of having social support is a central component of reducing suicidal behavior.

Although there are previous studies that analyze these variables separately, to our knowledge, there is no study that evaluates the relationship between depressive symptoms and suicidal risk in which social support and rumination are introduced as determining variables in this relationship. Therefore, this study aims to explore the relationship between depressive symptoms and rumination mediated by rumination and moderated by social support and controlling sex as a covariable. Based on previous literature, we hypothesize that the relationship between depressive symptoms and the risk of suicide will be mediated by brooding as the maladaptive part of rumination moderated by social support and, specifically, by situations of high social support. However, the reflection will not have a mediating effect as it is a scale that measures the adaptive part of rumination.

Method

Sample and Procedure

The present study follows a cross-sectional observational design. Data were collected between August 2022 and January 2023, using online methodology through the Survey Monkey platform. The average time to complete the evaluation was approximately 30 minutes. Due to the observational characteristics of the study, the only exclusion criterion was age below 18 years of age. This study was submitted for approval by the Research Ethics Committee of the Principality of Asturias under the number 2022.193, thus guaranteeing compliance with ethical standards and integrity in the conduct of the study.

At the end of the data collection period (approximately 6 months) a total of 1763 people had started the survey, but only 1002 had completed it correctly (66.83% of the total reached). Participants who did not complete questionnaires correctly were excluded. The final sample consisted of 1002 subjects (34.13 % male, 66.17% female) aged between 18 and 75 years ($M = 34.7$, $SD = 13.61$). The characteristics of the sample are specified in Table 1.

Instruments

Ad-hoc sociodemographic questionnaire. The ad-hoc sociodemographic questionnaire designed for this study comprises a series of questions that seek to collect comprehensive information on various social and demographic aspects of the participants' lives. Categories assessed include age, gender, marital status, family history of mental health problems, and socioeconomic status.

Brief Symptom Checklist (LSB-50) (de Rivera et al., 2012) is a validated and recognized tool in psychological research. The depression subscale assesses in 10 items the presence of symptoms characteristic of depression such as sadness, hopelessness, anhedonia, anergia, helplessness or self-destructive ideation, including guilt. The mean (SD) of the depression subscale was 1.31 (0.90), and the internal consistency was good, $\alpha = .92$.

Table 1
Sociodemographic Characteristics of the Sample

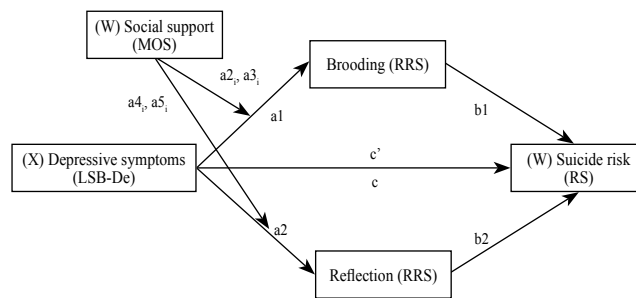
	Sample (n = 1002)	
	n	%
Sex		
Male	342	34.13
Female	660	65.87
Age		
18-25 years	534	53.29
26-39 years	164	16.37
40-59 years	265	26.45
60+ years	39	3.89
Marital status		
Single	332	33.13
Married	311	31.13
Divorced	183	18.26
Unmarried couple	161	16.07
Widower	15	1.50
Educational Level		
Basic education	184	18.36
Secondary education	184	18.36
Bachelor's Degree	413	41.22
University studies	221	22.06
Socioeconomic level		
Low	136	13.57
Medium	607	60.58
Medium-high	253	25.25
High	6	0.60

Ruminative Responses Scale (RRS) (Spanish validation: [Hervás, 2008](#); [Nolen-Hoeksema, 1991](#)) The RRS consists of 22 items on a five-point scale (from “never” = 1 to “always” = 5) divided into three subfactors (12 depression-related items, 5 brooding items, and 5 reflection items). Higher scores indicate an individual’s tendency to ruminate when faced with depressive symptoms. In this study, internal consistency was high for the RRS scale ($\alpha = .95$). For this study, the Brooding and Reflection subscales were used, with a reliability of .79 and .82, respectively.

The Social Support Survey (MOS) (Spanish validation: [de la Revilla Ahumada et al., 2005](#); [Sherbourne & Stewart, 1991](#)). It consists of 20 items on a five-point scale (from *never* = 1 to *always* = 5), which measures the degree to which the subject can count on the support of people in different support from people in different contexts. It provides an index of global and four subscales measuring its emotional, material, affective, and positive social interactions components positive social interactions. In addition, the global scale used in this study provides a cut-off point that limits high and low social support. In this study, the internal consistency of the survey was high, $\alpha = .96$.

Risk of Suicide (RS) Scale ([Plutchik & Van Praag, 1989](#); Spanish validation: [Rubio et al., 1998](#)). It is a self-administered instrument

Figure 1
Hypothetical Model



that provides a score that indicates the risk of suicide. The scale allows answering *yes* or *no* to 15 questions. Each affirmative answer is scored as 1 point, indicating a higher final score and a higher suicidal risk. The mean (*SD*) of the RS in the present study was 4.41 (3.70). However, the internal consistency was low ($< .90$), $\alpha = .83$, to be used in applied context where important decisions are made ([Nunnally, 1967](#)).

Data Analysis

The IBM-SPSS (v.28) data analysis software was used to perform the statistical analyses. First, basic descriptive statistics were calculated for the sample and the variables involved in the study.

Secondly, using Macro PROCESS (v.3.5), the analysis of moderated mediation was carried out, which combines the analysis of mediation with the analysis of moderation, making it possible to discover whether the mediating variable produces a differential effect on the different categories of the moderating variable ([Hayes, 2018](#)), a multivariate moderated mediation analysis models was performed (model 7). In the model, the independent variable was the score on the LSB-De (depressive symptoms), the dependent variable (Y) was the risk of suicide score (RS), the moderator variable (W) was the social support (MOS), and the mediators (M) were two subscales of RRS: Brooding and Reflection. A 95% confidence interval and 10000 Bootstrapping samples were selected in the multivariate moderated-mediation model. Moreover, the sex variable was introduced as a covariate to control for its possible effect on the results.

The direct effects of variable X on the mediators (a_1), the direct effect of the moderator in the mediators (a_2), the direct effects of the mediators (M) on variable Y (b_1), the direct effect (c'), the total effect (c) were studied. The proposed hypothetical multivariate mediation model is shown below ([Figure 1](#)).

Results

Moderated Mediation Analysis

This analysis aims to test whether the relationship between depressive symptoms and suicidal risk is mediated by rumination and, in turn, this relationship changes as a function of social support. Coefficients were estimated independently in two regression analyses using 10000 bootstrapping to test whether the indirect

Figure 2
Moderated Mediation Model

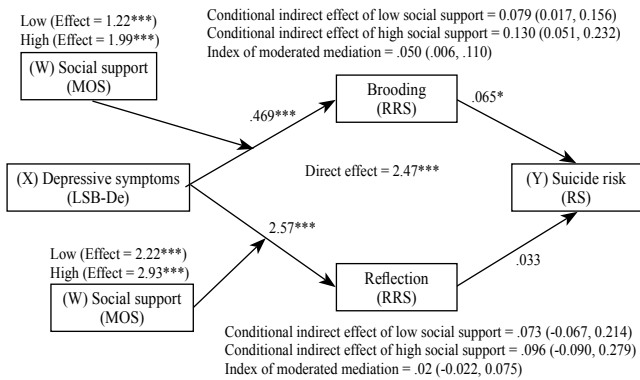


Table 2
Conditional Indirect Effects of Depression on Suicide Risk

Mediator variable	Moderator	Results of multivariate indirect effects		
		Estimate effect (SE)	95 % CI	
			LL	UL
Brooding	Low social support	0.072	-0.067	0.214
	High social support	0.096	-0.090	0.279
Reflection	Low social support	0.079	0.017	0.158
	High social support	0.130	0.304	0.232

Note: LL: lower limit; UL: upper limit. The indirect effect is statistically significant (in bold formatting) if the confidence interval (CI) does not include zero.

effect depends on social support (W). First, the Brooding and Reflection subscales (M) were regressed on depressive symptoms (X), social support (W), and the interaction between the mediator and social support (M x W; using mean-centered variables). Subsequently, depressive symptoms (X), the subscales of RRS (Brooding and Reflection) (M), and these subscales, and social support (M x W; using mean-centered variables) were regressed on suicide risk (Y). An overall effect of the Y on the M is a precondition for moderated mediation: A significant interaction effect (W x M) on suicide risk is only indicative of moderated mediation if suicide risk (Y) also affects Brooding and Reflection (M).

After identifying a significant interaction effect, regression analyses were subsequently performed across various levels of the moderator to examine the extent of variation in mediation. All variables underwent Z-standardization, and indirect effects are presented at the moderator’s mean and ±1 standard deviation. Bias-corrected bootstrapping was implemented to ensure more precise confidence intervals (MacKinnon et al., 2004).

Two regression analyses tested the moderated mediation hypothesis. On the one hand, Brooding (M) was predicted by depressive symptoms (X), $\beta = 1.61$, 95% CI [1.37, 1.85], $p < .001$, by Social Support, $\beta = -1.66$, 95% CI [-2.65, -0.66], $p = .001$, and by the interaction of Social Support X Depressive symptoms (W x X), $\beta = 0.77$, 95% CI [0.30, 1.24], $p = .001$. On the other hand, Reflection (M) was predicted by depressive symptoms (X), $\beta = 2.57$, 95% CI [2.37, 2.77], $p < .001$, and by the interaction of

Social Support x Depressive symptoms (W x X), $\beta = 0.71$, 95% CI [0.31, 1.11], $p < .001$. However, it was not predicted by Social Support (W), $\beta = -0.75$, 95% CI [-1.60, 0.10], $p = .918$.

Subsequently, suicide risk was predicted by depressive symptoms, $\beta = 2.47$, 95% CI [2.25, 2.68], $p < .001$, and Brooding, $\beta = 0.07$, 95% CI [0.01, 0.12], $p = .010$, with 56% of the suicide risk variance being explained. The significant interaction effect supported the assumption of moderated mediation (Figure 2).

Conditional indirect effects were significant in the Brooding subscale of the RRS, both for the low and high social support categories (Table 2). The high social support moderated the indirect effect, $\beta = 0.05$, 95% CI [0.01, 0.11].

Discussion

To our knowledge, this is the first clinical study to examine the mediating role of rumination, moderated by social support, in the relationship between depressive symptoms and the risk of suicide in a Spanish sample. Although most research focuses on cognitive variables, this study also includes social support as a relevant interpersonal variable. Our results show how the effect of the negative variant of rumination or brooding, moderated by high levels of social support, acts as a mediator of suicidal risk.

The results agree with previous research (Hervás, 2011; Teasdale & Green, 2004), showing the existence of a maladaptive (Brooding) and an adaptive component (Reflection) without relevance for suicidal risk. Furthermore, it is observed that there is a significant mediating effect of social support for the Brooding subscale (Kleiman & Liu, 2013; Matel-Anderson et al., 2019; Silva et al., 2023). In this sense, high levels of social support could decrease rumination. This result could be due to an externalization of such thoughts verbally in front of people and fits within the interpersonal theory of suicide (Joiner et al., 2017; Van Orden et al., 2010). Thus, while people experiencing interpersonal disconnection increases the risk of suicide, social support causes people to turn to others and externalize their worries, improving not only rumination but also suicidal risk.

This research may have clinical implications. For example, appropriate emotional regulation strategies or preventive programs that stimulate these skills may help to reduce rumination and develop other more adaptive strategies (Antuña-Cambor et al., 2023). Social support networks could also be established to enhance the moderating effect of social support. Nevertheless, undoubtedly, it is necessary to incorporate these findings within a National Plan that addresses suicide as a complex issue that requires health, educational, and social treatment.

Despite the clinical relevance of the results, there are several limitations to consider. Firstly, this study adopts a cross-sectional design where the data are collected using a computerized protocol, giving rise to several problems. On the one hand, it prevents determining causal relationships between variables. On the other hand, although social desirability has been controlled with an instrument and specific items have been introduced to control random responses, various biases can occur when completing online instruments, which are also in self-report format. Secondly, another methodological problem to highlight is the reliability of the Suicide Risk scale since the reliability would not be adequate in the case of the suicide risk measure since it is less than .95 (Nunnally, 1967;

Quevedo-Blasco et al., 2023). Finally, the percentage of women was higher than that of men, so the sex variable was introduced as a covariate to control for possible differences. Despite the limitations, these data could contribute to understanding this problem from a psychosocial point of view that could be incorporated into national plans and strategies for suicide prevention.

The results provide new information that has been scarcely explored in the Spanish population and contribute to the understanding of the complex relationships between depressive symptoms and suicide risk. Thus, controlling for the sex variable, this relationship is mediated by the maladaptive part of rumination and moderated by high levels of social support. Future research could confirm whether such results are replicated in longitudinal studies and whether non-computerized protocols can be used to overcome the limitations of this study. Despite this, the need to consider rumination in preventive interventions is highlighted to explore these relationships in more depth and inform specific interventions for individuals at risk of suicide.

References

- Antuña-Cambor, C., Cano-Vindel, A., Carballo, M. E., Juarros-Basterretxea, J., & Rodríguez-Díaz, F. J. (2023). La regulación emocional como factor transdiagnóstico de los trastornos emocionales. *Escritos de Psicología/ Psychological Writings*, 16(1), 44–52. <https://doi.org/10.24310/espiesepsi.v16i1.14771>
- Antuña-Cambor, C., Peris-Baquero, Ó., Juarros-Basterretxea, J., Cano-Vindel, A., & Rodríguez-Díaz, F. J. (2024). Transdiagnostic risk factors of emotional disorders in adults: A systematic review. *Anales de Psicología/Annals of Psychology*, 40(2), 199–218. <https://doi.org/10.6018/analesps.561051>
- de la Revilla Ahumada, L., Luna del Castillo, J., Bailón Muñoz, E., & Medina Moruno, I. (2005). Validación del cuestionario MOS de Apoyo Social en Atención Primaria. *Medicina de Familia*, 6, 10–18.
- de Rivera, J. L. G., de Rivera, L., & Abuín, M. (2012). *LSB-50: Listado de síntomas breve. Manual*. TEA Ediciones.
- Eisma, M. C., Schut, H. A. W., Stroebe, M. S., Boelen, P. A., van den Bout, J., & Stroebe, W. (2015). Adaptive and maladaptive rumination after loss: A three-wave longitudinal study. *British Journal of Clinical Psychology*, 54(2), 163–180. <https://doi.org/10.1111/bjc.12067>
- Fredriksen, K. J., Gjestad, R., Walby, F. A., Anda, L. G., Oedegaard, K. J., & Schoeyen, H. K. (2022). High scores on the Montgomery-Åsberg Depression Rating Scale and psychotic symptoms predict suicide: A prospective cohort study of psychiatric acute ward patients. *Journal of Clinical Psychiatry*, 83(5), 21m14018. <https://doi.org/10.4088/JCP.21m14018>
- Hayes, A. F. (2018). *Introduction to mediation, moderation and conditional process analysis: A Regression approach*. Guildford Press.
- Hensel, L. M., Forkmann, T., & Teismann, T. (2024). Suicide-specific rumination as a predictor of suicide planning and intent. *Behaviour Research and Therapy*, 180, 104597. <https://doi.org/10.1016/j.brat.2024.104597>
- Hervás, G. (2011). Psicopatología de la regulación emocional: El papel de los déficit emocionales en los trastornos clínicos [Psychopathology of emotional regulation: The role of emotional deficits in clinical disorders]. *Behavioral Psychology*, 19(2), 347–372. <https://www.behavioralpsycho.com/producto/psicopatologia-de-la-regulacion-emocional-el-papel-de-los-deficit-emocionales-en-los-trastornos-clinicos/>
- Hervás, G. (2008). Adaptación al castellano de un instrumento para evaluar el estilo rumiativo. *Revista de Psicopatología y Psicología Clínica*, 13(2), 111–121. <https://doi.org/10.5944/rppc.vol.13.num.2.2008.4054>
- Joiner, T. (2005). *Why people die by suicide*. Harvard University Press.
- Joiner, T. E., Buchman-Schmitt, J. M., Chu, C., & Hom, M. A. (2017). A Sociobiological extension of the interpersonal theory of suicide. *Crisis*, 38(2), 69–72. <https://doi.org/10.1027/0227-5910/a000463>
- Kleiman, E. M., & Liu, R. T. (2013). Social support as a protective factor in suicide: Findings from two nationally representative samples. *Journal of Affective Disorders*, 150(2), 540–545. <https://doi.org/10.1016/j.jad.2013.01.033>
- Li, H., Huang, Y., Wu, F., Lang, X., & Zhang, X. Y. (2020). Prevalence and related factors of suicide attempts in first-episode and untreated Chinese Han outpatients with psychotic major depression. *Journal of Affective Disorders*, 270, 108–113. <https://doi.org/10.1016/j.jad.2020.03.093>
- Liu, D., Liu, S., Deng, H., Qiu, L., Xia, B., Liu, W., Zhang, D., Huang, D., Guo, H., & Zhang, X. (2023). Depression and suicide attempts in Chinese adolescents with mood disorders: The mediating role of rumination. *European Archives of Psychiatry and Clinical Neuroscience*, 273(4), 931–940. <https://doi.org/10.1007/s00406-022-01444-2>
- MacKinnon, D. P., Lockwood, C. M., & Williams, J. (2004). Confidence limits for the indirect effect: Distribution of the product and resampling methods. *Multivariate Behavioral Research*, 39(1), 99–128. https://doi.org/10.1207/s15327906mbr3901_4
- Matel-Anderson, D. M., Bekhet, A. K., & Garnier-Villarreal, M. (2019). Mediating effects of positive thinking and social support on suicide resilience. *Western Journal of Nursing Research*, 41(1), 25–41. <https://doi.org/10.1177/0193945918757988>
- Milicev, J., McCann, M., Simpson, S. A., Biello, S. M., & Gardani, M. (2023). Evaluating mental health and wellbeing of postgraduate researchers: Prevalence and contributing factors. *Current Psychology*, 42(14), 12267–12280. <https://doi.org/10.1007/s12144-021-02309-y>
- National Institute of Statistics. (2023). *Defunciones según la Causa de Muerte Año 2022. Datos provisionales*. https://www.ine.es/prensa/edcm_2022.pdf
- Nolen-Hoeksema, S. (1991). Responses to depression and their effects on the duration of depressive episodes. *Journal of Abnormal Psychology*, 100(4), 569–582. <https://doi.org/10.1037/0021-843X.100.4.569>
- Nunnally, J. C. (1967). *Psychometric theory*. McGraw-Hill.
- Olgiate, P., Pecorino, B., & Serretti, A. (2024). Suicide ideation and male-female differences in major depressive disorder. *International Journal of Psychiatry in Clinical Practice*, 28(1), 53–62. <https://doi.org/10.1080/13651501.2024.2335950>
- Plutchik, R., & Van Praag, H. (1989). The measurement of suicidality, aggressivity and impulsivity. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 13, S23–S34. [https://doi.org/10.1016/0278-5846\(89\)90107-3](https://doi.org/10.1016/0278-5846(89)90107-3)
- Quevedo-Blasco, R., Pérez, M. J., Guillén-Riquelme, A., & Hess, T. (2023). Civil liability for clinical misdiagnosis of suicidal intention: procedure and guidelines to minimize fatal diagnostic error. *European Journal of Psychology Applied to Legal Context*, 15(2), 73–81. <https://doi.org/10.5093/ejpalc2023a8>
- Rubio, G., Montero, J., Jáuregui, J., Villanueva, R., Casado, M. A., Marin, J. J., & Santo-Domingo, J. (1998). Validación de la Escala de Riesgo Suicida de Plutchik en población española [Assessing the validity of the Plutchik Suicide Risk Scale in a Spanish sample]. *Archivos de Neurobiología*, 61(2), 143–152.

- Sandín, B., Chorot, P., & Valiente, R. M. (2012). Transdiagnóstico: nueva frontera en psicología clínica. *Revista de Psicopatología y Psicología Clínica, 17*(3), 185–203.
- Sherbourne, C. D., & Stewart, A. L. (1991). The MOS social support survey. *Social Science & Medicine, 32*(6), 705–714. [https://doi.org/10.1016/0277-9536\(91\)90150-B](https://doi.org/10.1016/0277-9536(91)90150-B)
- Silva, C., McGovern, C., Gomez, S., Beale, E., Overholser, J., & Ridley, J. (2023). Can I count on you? Social support, depression and suicide risk. *Clinical Psychology & Psychotherapy, 30*(6), 1407. <https://doi.org/10.1002/cpp.2883>
- Stone, D. M., Jones, C. M., & Mack, K. A. (2021). Changes in Suicide Rates — United States, 2018–2019. *MMWR. Morbidity and Mortality Weekly Report, 70*(8), 261–268. <https://doi.org/10.15585/mmwr.mm7008a1>
- Tang, H., Xiong, T., Shi, J., Chen, Y., Liu, X., Zhang, S., Wang, H., Lu, Q., & Yao, Z. (2021). Global and reflective rumination are related to suicide attempts among patients experiencing major depressive episodes. *BMC Psychiatry, 21*(1), 117–143. <https://doi.org/10.1186/s12888-021-03119-z>
- Teasdale, J. D., & Green, H. A. C. (2004). Ruminative self-focus and autobiographical memory. *Personality and Individual Differences, 36*(8), 1933–1943. <https://doi.org/10.1016/j.paid.2003.08.022>
- Toro, R., González, C., Mejía-Vélez, S., & Avendaño-Prieto, B. (2021). Modelo de riesgo suicida transcultural: Evidencias de la capacidad predictiva en dos países de Latinoamérica. *Ansiedad y Estrés, 28*(1), 112–118. <https://doi.org/10.5093/anyes2021a15>
- Van Orden, K. A., Witte, T. K., Cukrowicz, K. C., Braithwaite, S. R., Selby, E. A., & Joiner, T. E. (2010). The interpersonal theory of suicide. *Psychological Review, 117*(2), 575–600. <https://doi.org/10.1037/a0018697>
- World Health Organization (WHO). (2024). *Suicide*. <https://www.who.int/news-room/fact-sheets/detail/suicide>
- Yang, H., Huang, C., Maccann, C., He, Y., Jiang, H., & Yu, G. (2023). Development and initial validation of the Positive and Negative Co-Rumination Scale. *Psychological Reports*. Advance online publication. <https://doi.org/10.1177/00332941231186943>

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Institutional Review Board Statement: This study was submitted for approval by the Research Ethics Committee of the Principality of Asturias (Code: 2022.193).