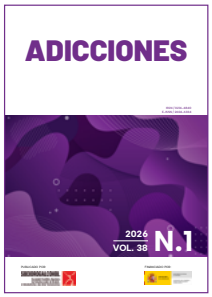
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ADICCIONES
2026 ■ VOL. 38 ■ N. 1 ■ PAGES 41–50
www.adicciones.es



ORIGINAL

Emotion regulation strategies mediate the relationship between excessive alcohol use and suicidal behaviour

Las estrategias de regulación emocional median en la relación entre el consumo excesivo de alcohol y la conducta suicida

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Abstract

Alcohol is one of the most widely consumed substances worldwide. It is hypothesized that people who use alcohol have poor emotional regulation strategies, something shared by individuals who have engaged in suicidal behaviour or those who have died by suicide. Therefore, the aim of this work is to study the mediational effect of coping strategies and distress tolerance in the relationship between excessive alcohol use and suicidal risk. A sample of 1014 participants (33.82% male, 66.17% female; M = 33.0, SD = 15.15) were assessed using a custom sociodemographic questionnaire, the Alcohol Use Disorders Identification Test (AUDIT), the Coping with Stress Questionnaire (CSQ), *Distress Tolerance Stress (DTS),* and Suicide Risk (RS). Two mediation models were performed in which AUDIT scores were used as the independent variable, RS score as the dependent and sex as a covariate. In the first model the mediating variable was the CSQ scores and in the second the DTS scores. The relationship was mediated positively by Negative Auto-Focused, Appraisal and Absorption, and negatively by Tolerance. Emotional regulation is a transdiagnostic strategy that can reduce not only alcohol consumption, but also suicidal risk. Given these results, there is a pressing need to develop preventive programs centered on adaptive emotion regulation strategies. Emotional regulation plays a key role in the relationship between excessive alcohol use and suicidal risk.

Keywords: alcohol, suicide, emotion regulation, tolerance of distress, coping skills

Resumen

El alcohol es una de las sustancias más consumidas en todo el mundo. Se hipotetiza que las personas que consumen alcohol tienen pobres estrategias de regulación emocional, algo que comparten las personas que se suicidan. Por ello, el objetivo de este trabajo es estudiar el efecto mediacional de las estrategias de afrontamiento y la tolerancia a la angustia en la relación entre el consumo excesivo de alcohol y el riesgo suicida. En una muestra de 1014 participantes (33,82% hombres, 66,17% mujeres; M = 33,0, DE = 15,15) se aplicó un cuestionario sociodemográfico personalizado, el Test de Identificación de Trastornos por Consumo de Alcohol (AUDIT), el Cuestionario de Afrontamiento del Estrés (CSQ), la escala de Tolerancia al Distrés (DTS) y el de Riesgo Suicida (RS). Se realizaron dos modelos de mediación en los que se utilizaron las puntuaciones del AUDIT como variable independiente, la puntuación del RS como dependiente y el sexo como covariable. En el primer modelo la variable mediadora fueron las puntuaciones CSQ y en el segundo las puntuaciones DTS. La relación fue mediada positivamente por Autoenfoque Negativo, Valoración y Absorción, y negativamente por la Tolerancia. La regulación emocional es una estrategia transdiagnóstica que puede reducir no sólo el consumo de alcohol, sino también el riesgo suicida. Dados estos resultados, existe una necesidad imperiosa de desarrollar programas preventivos centrados en estrategias adaptativas de regulación emocional. La regulación emocional juega un papel clave en la relación entre el consumo excesivo de alcohol y el riesgo suicida.

Palabras clave: alcohol, suicidio, regulación emocional, tolerancia a la angustia, habilidades de afrontamiento

■ *Received: May 2025; Accepted: October 2025.*

■ ISSN: 0214-4840 / E-ISSN: 2604-6334

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Alcohol is one of the most widely consumed psychoactive substances worldwide. A cross-sectional study found that the average lifetime prevalence of alcohol consumption across countries surveyed by the World Health Organization (WHO) was 80% (Glantz et al., 2020). In Spain, alcohol remains the most commonly used psychoactive substance, with a prevalence of 76.5% by 2024, slightly higher in males (Spanish Ministry of Health, 2025). The widespread consumption of alcohol carries significant social and health problems (Rehm et al., 2017). Regarding social problems, heavy drinking has been linked to interpersonal difficulties, with studies showing that excessive alcohol use is significantly associated with problems in peer relationships (Fletcher, 2019) and a feeling of loneliness (Waesche et al., 2016). Moving on to health problems, alcohol use is associated with several diagnoses (Griswold et al., 2018; Rehm et al., 2017), and global morbidity and mortality, accounting for approximately three million deaths annually (Kranzler & Soyka, 2018; WHO, 2019), being the leading cause of death among individuals with substance use disorders (Wilcox et al., 2004) and found that 33% of suicide victims tested positive for alcohol, with 63% meeting criteria for alcohol intoxication based on blood alcohol levels (Krug et al., 2002).

Suicide is a complex and multifactorial phenomenon that affects everyone and kills one person every 40 seconds (WHO, 2021), so there are several theories to understand and reduce it. One of them is the Interpersonal Theory of Suicide (Joiner, 2005; Van Orden et al., 2010) which suggests that suicidal behavior arises from the interaction of thwarted belongingness, perceived burdensomeness, and the capability for suicide. Thwarted belongingness refers to feelings of social disconnection and isolation, while perceived burdensomeness involves the belief that one is a liability to others and that one's death would be more beneficial than one's existence. When both factors are present, suicidal ideation may develop. However, an individual must also acquire the capability for suicide—through repeated exposure to painful or provocative experiences, such as self-harm or substance use—to overcome the natural fear of death and act on their suicidal thoughts. Therefore, emotional regulation is an essential axis in this theory.

However, as recent research has emphasized, suicidal behaviour cannot be fully understood through linear or exclusively individual models of risk. The field has progressively shifted toward developmental, psychosocial, and contextual perspectives that integrate emotional, cognitive, and environmental determinants (Al-Halabí & Fonseca-Pedrero, 2024). These approaches highlight that suicidal behaviour emerges from the dynamic interaction between personal vulnerabilities and social contexts—such as isolation, stigma, or socioeconomic stressors—that shape individual distress and coping responses.

In this broader framework, addictive and suicidal behaviours are understood as interconnected processes that share common underlying mechanisms—particularly emotional dysregulation, impulsivity, and maladaptive coping—which mutually reinforce one another (Fonseca-Pedrero & Al-Halabí, 2024). Empirical evidence in Spanish adolescents supports this interaction: alcohol consumption has been linked to self-injurious, pointing to developmental pathways where substance use both reflects and exacerbates emotional distress (Bousoño et al., 2021). Moreover, individuals who present with self-harm have a very elevated risk of suicide (Hawton et al., 2015).

Within more integrative theoretical frameworks, Rory O'Connor's Integrated Motivational–Volitional (IMV) model underscores that the transition from suicidal thinking to action is moderated by volitional factors such as impulsivity, exposure to self-harm, and planning capacity, rather than being solely the result of static risk factors (O'Connor & Kirtley, 2018). There are several ways to prevent suicide behaviour and, despite of Hawton et al. (2024) also highlights that restricting access to lethal means remains among the most effective population-level suicide prevention measures, not always is posible.

Another way is improving emotion regulation. Emotion regulation has been conceptualized as processes through which individuals modulate their emotions consciously and nonconsciously (Rottenberg et al., 2005). Thus, can be divided into maladaptive or adaptive depending on the damage to our health. Maladaptive strategies may include behaviours aimed at regulating emotional distress, such as excessive alcohol consumption or suicidal behaviour. For example, individuals who struggle with regulating negative emotions may use alcohol as a maladaptive coping mechanism to alleviate distress (Aldao et al., 2010) and, when they cannot tolerate higher levels, increase the risk of suicide (Vujanovic et al., 2017). Conversely, adaptative emotion regulation strategies can mitigate the harmful effects of excessive alcohol use by reducing impulsive reactions to distressing situations and reducing suicidal behaviour. Emotional regulation encompasses different strategies, such as coping-strategies or distress tolerance. Thus, while coping-strategies are strategies used to manage stressors and unpleasant emotions (Romero et al., 2020), distress tolerance is a metaemotional construct that refers to the ability to withstand and manage negative psychological states associated with stress (Melli et al., 2021). However, both are emotional regulation strategies and with an improvement of these adaptative strategies, suicidal behaviour could be reduced.

From a clinical and preventive perspective, strengthening adaptive emotional regulation processes has been proposed as a key pathway to mitigate both substance misuse and

suicidality. According to Al-Halabí & Fonseca-Pedrero, (2023) y Fonseca-Pedrero & Al-Halabí (2024), effective interventions should not only address individual symptoms but also humanize care and integrate social determinants—such as connection, meaning, and equity—into prevention and treatment programs.

The present work aims to study the possible mediating effect of emotional regulation (coping-strategies and tolerance of distress) on the relationship between excessive use of alcohol and the risk of suicide.

Methods

Sample and procedure

This study employed a cross-sectional observational design. Data collection took place between August 2022 and September 2023 using an online methodology via the SurveyMonkey platform. On average, participants required approximately 30 minutes to complete the assessment. The only exclusion criterion was being under 18 years of age. The study was reviewed and approved by the Research Ethics Committee of the Principality of Asturias under the number 2022.193, ensuring adherence to ethical standards and research integrity.

Over the 13-month data collection period, a total of 1,763 individuals initiated the survey; however, only 1,014 participants (57.7% of the total sample) completed it in its entirety. Incomplete responses were excluded from the final analysis. The final sample comprised 1,014 individuals, with 33.82% identifying as male and 66.17% as female. Participants' ages ranged from 18 to 75 years (M = 33.0, SD = 15.15). Further details regarding sample characteristics are presented in Table 1.

Table 1

Sociodemographic characteristics of the sample

	Sample (n = 1014)	
	n	**%**
Sex		
Male	343	33.83
Female	671	66.17
Age		
18-25 years	546	53.85
26-39 years	164	16.17
40-59 years	265	26.13
60+ years	39	3.85
Marital status		
Single	343	33.83
Married	312	30.77
Divorced	183	18.05
Unmarried couple	161	15.88
Widower	15	1.48
Educational Level		
Basic education	184	18.15
Secondary education	184	18.15
Bachelor's Degree	423	41.72
University studies	223	21.99
Socioeconomic level		
Low	136	13.41
Medium	618	60.95
Medium-high	254	25.05
High	6	0.59

Instruments

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

Alcohol Use Disorders Identification Test (AUDIT) (Pérula de Torres et al., 2005; Saunders et al., 1993) is a self-administered instrument developed by the World Health Organization, providing classifications of alcohol consumption and dependence. The internal consistency was acceptable (a = 0.78).

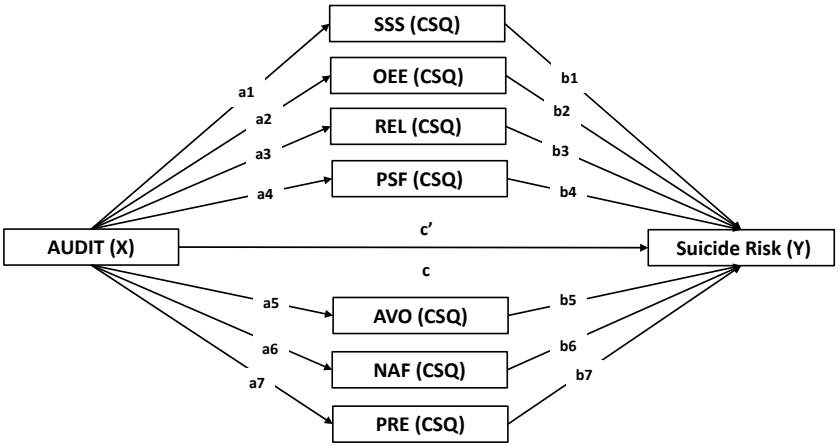
The Coping with Stress Questionnaire (CSQ) (Sandín & Chorot, 2003) is a 42-item self-report measure that assesses various forms of coping with stress. It consists of seven dimensions: focus on problem solving (FSP), positive reappraisal (PRE), seeking social support (SSS), negative self-focus (NAF), open emotional expression (OEE), avoidance (AVO) and religion (REL). A higher score on each of the scales indicates a higher use of that strategy. Internal consistency was good for the scales (α=.72-.90).

The *Distress Tolerance Stress (DTS)* (Simons & Gaher, 2005; Spanish validation: Sandín et al., 2017) is a 15-item self-report scale that assesses an individual's ability to tolerate stress. It is composed of 4 subscales: tolerance of distressing emotions (TOL), rating of experienced ability and distress (APP), absorption in one's own negative emotions (ABS) and ability to regulate emotions (REG). Participants rate these items on a 5-point Likert anchor scale (1=strongly disagree; 5=strongly agree). The DTS is scored by calculating the mean score for each of the four subscales and a higher score indicates a greater ability to tolerate distress. The DTS demonstrated good internal consistency across the sample for the different subscales (α=.81-.89).

Risk of Suicide (RS) Scale (Plutchik & Van Praag, 1989; Spanish validation: Rubio et al., 1998). . It is a self-administered instrument that provide a score that indicate risk of suicide The scale offers the possibility of

Figure 1

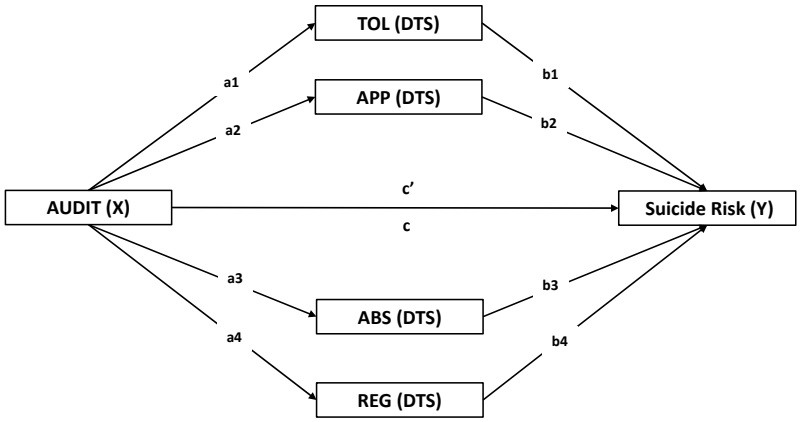
Hypothetical mediation model with CSQ



Note. CSQ: Coping Questionnaire Stress; SSS: seeking social support; OEE: open emotional expression; REL: religion; PSF: problem-solving focus; AVO: avoidance; NAF: negative self-focus; PRE: positive reappraisal. Gender as entered as covariate.

Figure 2

Hypothetical mediation model with DTS



Note. DTS: Distress Tolerance Stress; TOL: tolerance; VAL: valence; APP: appraisal; REG: emotion regulation. Gender as entered as covariate.

answering "yes" or "no" to 15 questions. Each affirmative answer is scored as 1 point indicating a higher final score, a higher suicidal risk. The internal consistency was good (a = 0.82).

Analysis

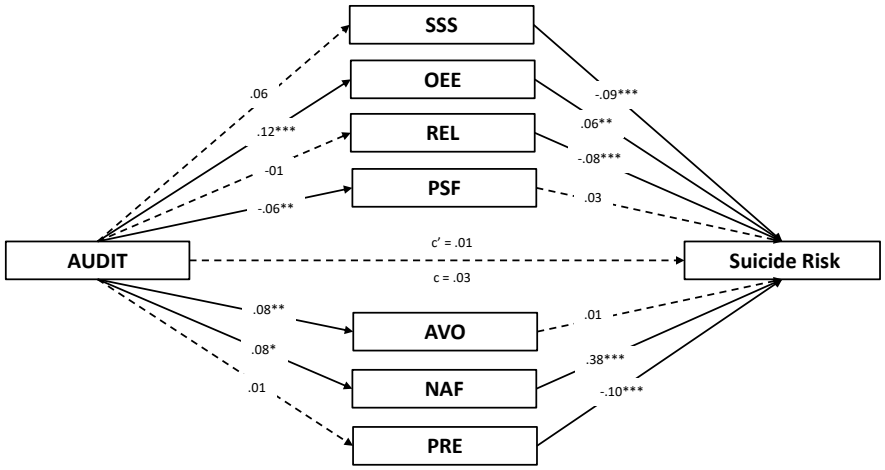
First, the Statistical Package for Social Sciences (SPSS v.28) data analysis software was used to manage data and descriptive analyses. Secondly, using, R (4.3.3) multivariate mediation analysis models were performed. Two different models were estimated, the independent variable (X) and the dependent variable (Y) were held constant, but the mediators (Me) were modified. In the first model, the Me were the 7 coping strategies listed in the CSQ: Seeking Social Support, Open Emotional Expression, Religion, Focus on Problem Solving, Avoidance, Negative Self-Focus and Positive Reappraisal. In the second model, the 4 stress tolerance scales of the DTS were introduced as Mediators: Tolerance, Appraisal, Absorption and Regulation. In all models, sex and age were introduced as covariates to control for their possible effects on the results.

In both multivariate mediation models, 95% confidence intervals were estimated using 5.000 bootstrap samples. The direct effects of the variable X on the mediators (a_i), the direct effects of the mediators (Me) on the variable Y (bi), the direct effect (c'), the total effect (c), and the indirect effect of X on Y through the different mediators were examined. In all figures, direct and indirect effects are reported in standardized β to improve comparability.

Additionally, given that this is a cross-sectional study, and considering that the directionality proposed in the hypotheses may raise some doubts despite its

Figure 3

Mediation model with CSQ



Note. *p < .05, **p < .01, *** p < .001; CSQ: Coping Questionnaire Stress; SSS: seeking social support; OEE: open emotional expression; REL: religion; PSF: problem-solving focus; AVO: avoidance; NAF: negative self-focus; PRE: positive reappraisal. Gender as entered as covariate.

theoretical justification, an inverse mediation model was also calculated. In this alternative model, suicidal risk was entered as the independent variable and alcohol consumption as the dependent variable. The aim of this analysis was to verify whether the inverse relationship was non-significant, thereby providing greater robustness to the proposed model. In the event that a significant relationship emerged, such bidirectionality would be considered as a potential line of future research.

The figures below show the proposed hypothetical multivariate mediation models (Figure 1 and 2).

Results

Mediation analysis with CSQ

The direct effects of AUDIT were significant for Open Emotional Expression (β = .12, [95% CI = .07, .18], p < .001), Avoidance (β = .08, [95% CI = .02, .14], p = .016), and Negative Self-Focus (β = .08, [95% CI = .01, .15], p = .020). In contrast, direct effects on Seeking Social Support, Religion, Focus on Problem Solving, and Positive Reappraisal were not significant (p > .05). Similarly, the direct and total effects of AUDIT on suicidal behaviour (RS) were also non-significant (p = .602 and p = .126, respectively; see Figure 3).

Regarding the direct effects of the different coping strategies (mediators), significant effects were observed for Seeking Social Support (β = −.09, [95% CI = −.13, −.06], p < .001), Seeking Social Support (β = .07, [95% CI = .00, .12], p = .035), Religion (β = −.08, [95% CI = −.13, −.04], p < .001), Negative Self-Focus (β = .39, [95% CI = .34, .44], p < .001), and Positive Reappraisal (β = −.10, [95% CI = −.15, −.05], p < .001) (see Figure 3).

Finally, concerning the indirect effects, only the pathway mediated through Negative Self-Focus was significant (β = .03, [95% CI = .01, .06], p = .022). The remaining indirect effects were not statistically significant (see Table 2). In the inverse model, where suicide risk was considered the independent variable, significant effects were observed for Open Emotional Expression (β = .032, p = .010), Problem-solving focus (β = .037, p = .013). However, the remaining coping strategies did not show significant effects (all p > .05) (see Table 2).

Mediation analysis with DTS

The direct effects of AUDIT were significant for Tolerance (β = .08, 95% CI [0.02, 0.13], p = .010), Appraisal (β = .15, 95% CI [0.03, 0.25], p = .011), and Absorption (β = .08, 95% CI [0.02, 0.14], p = .008), but not for Regulation (p = .811). The direct effect of AUDIT on suicidal behaviour was not significant (p = .469); however, the total effect was significant (β = .07, p = .031) (see Figure 4).

The direct effects of the different mediators (DTS dimensions) on suicidal behaviour were significant for all: Tolerance (β = −.18, 95% CI [−.27, −.09], p < .001), Appraisal (β = .26, 95% CI [.20, .31], p < .001), Absorption (β = .36, 95% CI [.26, .46], p < .001), and Regulation (β = −.12, 95% CI [−.22, −.02], p = .014) (see Figure 4).

Finally, the indirect effects of the model were significant through the mediators Tolerance (β = −.01, p = .033), Appraisal (β = .04, p = .017), and Absorption (β = .03, p = .012), but not through Regulation (p = .821) (Table 2). In the inverse model, where suicide risk was considered the independent variable, significant effects were observed for Regulation (β = −.046, p = .025), whereas the other variables did not show significant effects (all p > .05).

Table 2

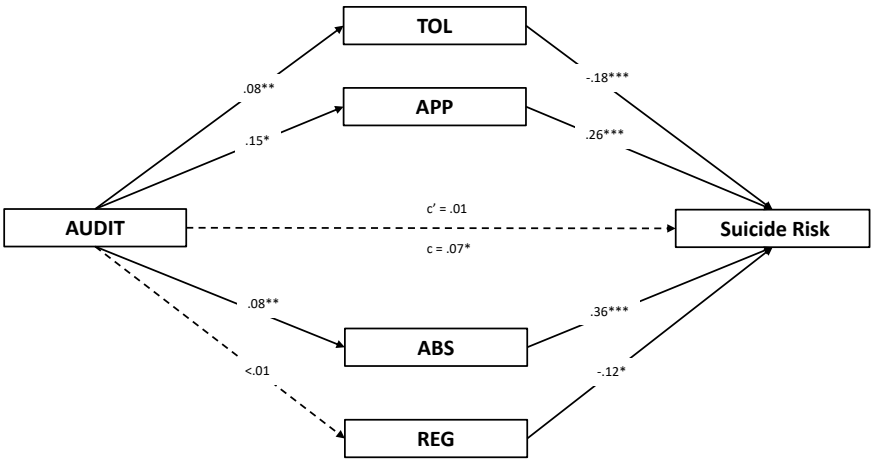
Estimates of indirect effects of the multivariate mediation analyses

		Main analyses (Models AUDIT→RS)		Sensitivity analyses (Models RS→AUDIT)	
Dependent Variable	**Mediator**	**Estimate effect (SE)**	p	**Estimate effect (SE)**	p
Suicide Risk	SSS	-.006 (.005)	.206	-.010 (.012)	.397
	OEE	.008 (.004)	.068	**.032 (.012)**	**.010**
	REL	.001 (.003)	.854	.002 (.003)	.553
	PSF	-.002 (.002)	.412	**.037 (.015)**	**.013**
	AVO	-.001 (.002)	.779	.004 (.004)	.323
	NAF	.031 (.013)	.022	.005 (.031)	.873
	PRE	-.001 (.004)	.055	-.027 (.016)	.092
Suicide Risk	TOL	-.014 (.007)	.033	.033 (.023)	.163
	APP	.037 (.016)	.017	.068 (.053)	.199
	ABS	.029 (.012)	.012	.013 (.041)	.752
	REG	-.001 (.003)	.821	-.046 (.021)	.025

Note. SSS: social support seeking; OEE: overt emotional expression; REL: religion; PSF: problem solving focus; AVO: avoidance; NAF: negative auto-focused; PRE: positive reappraisal; DTS: Distress Tolerance Stress; TOL: tolerance; APP: appraisal; ABS: absortion; REG: emotion regulation. The β coefficients of the indirect effects are standardized.

Figure 4

Mediation model with DTS



Note. *p < .05, **p < .01, *** p < .001; DTS: Distress Tolerance Stress; TOL: tolerance; VAL: valence; APP: appraisal; REG: emotion regulation. Gender as entered as covariate.

Discussion

This study jointly examined emotion regulation processes (coping strategies and distress tolerance) as mediators between excessive alcohol use and suicidal behaviour. In the first model, coping strategies were tested as mediators in the relationship between excessive alcohol use and suicidal behaviour. Results indicated that this relationship was significantly mediated only through the Negative Self-Focus strategy, while the remaining coping strategies did not show significant indirect effects. In particular, higher alcohol use predicted greater reliance on Negative Self-Focus, which in turn was associated with increased suicidal behaviour. In the second model, distress tolerance dimensions were explored as mediators of the relationship between excessive alcohol use and suicidal behaviour. The results showed that this association was positively mediated by Appraisal and Absorption, and negatively mediated by Tolerance.

Regarding the inverse model these results indicate that while some associations in the inverse direction reached statistical significance, the overall pattern of mediation was less consistent and theoretically less coherent. Therefore, the results of the inverse model do not contradict the directionality proposed in the original hypotheses but rather reinforce the robustness of the initially hypothesized model.

Previous studies have reported mixed findings regarding the relationship between distress tolerance and suicidality. For instance, Anestis et al. (2011) found discrepancies between self-reported and behavioural measures of distress tolerance, while Vujanovic et al. (2017) and Antuña-Camblor et al., (2024) observed that lower distress tolerance and specific subcomponents (Appraisal, Absorption, and Tolerance) are linked to suicidal behaviour. These inconsistencies underscore the importance of examining both subjective and behavioural indicators to clarify how distress tolerance contributes to vulnerability.

Considering our results, in the models studied, the relationship between excessive use of alcohol and risk of suicide attempts is positively mediated by Negative Self-Focus, Appraisal and Absorption, and negatively mediated by Tolerance. Therefore, they are according to the Interpersonal Theory of Suicide (Joiner, 2005; Van Orden et al., 2010), which proposes that suicidal behavior arises from the interaction of perceived burden, frustrated belongingness, and suicidality.

Our findings suggest that maladaptive emotion regulation strategies interact with alcohol use to increase vulnerability to suicidal behaviour. Specifically, alcohol may serve as a maladaptive coping mechanism that temporarily reduces negative affect but ultimately exacerbates self-focused rumination and emotional absorption. This myopic focus, amplified by alcohol's cognitive narrowing effects (Waesche et al., 2016), may heighten perceived burdensomeness and social disconnection—key components of the Interpersonal Theory of Suicide (Joiner, 2005; Van Orden et al., 2010). Individuals who rely on Negative Self-Focus and Appraisal distortions may experience intensified self-criticism and hopelessness, while low tolerance for distress diminishes their perceived ability to endure psychological pain. The convergence of these factors can create a critical pathway through which excessive alcohol use and poor emotional regulation increase the likelihood of suicidal behaviour.

From a preventive and clinical perspective, these results highlight the value of targeting emotion regulation and distress tolerance within addiction treatment programs. The findings showed that Negative Self-Focus, Absorption, and catastrophic Appraisal acted as positive mediators between excessive alcohol use and suicidal behaviour, whereas Tolerance functioned as a protective factor, mediating the relationship negatively. This pattern suggests that individuals who use alcohol as a means to regulate distress may become trapped in self-focused rumination and emotional absorption, amplifying hopelessness and suicidal vulnerability. Conversely, greater tolerance of distress appears to buffer the negative emotional impact of alcohol misuse.

Interventions such as Dialectical Behaviour Therapy (DBT) (Linehan, 1993) could strengthen adaptive coping, enhance distress tolerance, and reduce the appeal of alcohol as an emotion-regulation tool (Neacsiu et al., 2014). These findings are consistent with the proposals of Fonseca & Al-Halabí (2024) who emphasize that the co-occurrence of addictive and suicidal behaviours reflects shared underlying mechanisms—emotional dysregulation, impulsivity, and impaired coping processes—rather than independent disorders. Consequently, integrated approaches that simultaneously address substance use and suicidality are essential for prevention and treatment.

Moreover, as highlighted by Al-Halabí & Fonseca-Pedrero (2023), effective psychotherapies for suicidal behaviour share common components such as comprehensive assessment, a strong therapeutic alliance, work on emotional regulation, and inclusion of the individual's social context. Incorporating these principles into addiction-related interventions could enhance therapeutic efficacy and ensure continuity of care.

In line with the editorial perspective of Al-Halabí & Fonseca-Pedrero (2024), preventive programs should also adopt a humanizing and socially informed framework, addressing not only individual risk factors but also social determinants such as isolation, stigma, and inequality, which may exacerbate both alcohol misuse and suicidality. Prevention programs might therefore focus on enhancing social connectedness and emotional awareness, counteracting the effects of frustrated belongingness and self-perceived burdensomeness. Furthermore, brief motivational and cognitive-behavioural

interventions in substance-use settings could include modules that address maladaptive rumination and negative self-appraisal, aiming to reduce the emotional cascade that links excessive alcohol use to suicidal behaviour.

By integrating these evidence-based, prevention and treatment efforts can more effectively mitigate both substance misuse and suicidal behaviour, fostering resilience through improved emotional regulation and a more compassionate, person-centred model of care.

Limitations

Despite the novelty of this study and the valuable findings obtained, it is essential to acknowledge its limitations. First, the reliance on a cross-sectional design restricts the ability to establish causal relationships and determine the temporal sequencing between excessive use of alcohol, emotional regulation, and suicidal behaviour. Second, the use of self-report measures, such as questionnaires, introduces the possibility of response bias and social desirability effects, which may affect the accuracy of the data. Third, the sample's gender distribution was skewed, with a higher proportion of women than men, necessitating statistical control for this variable. Fourth, the study's sample may not fully represent the diversity of the Spanish population, potentially limiting the generalizability of the findings. Lastly, while no significant overlap was found between the suicidal behaviour scale and excessive alcohol use, and the scales demonstrated high specificity, some shared variance remains possible. Future studies should explore the specific and differential components that contribute to the decision to attempt suicide.

Future lines and conclusion

Future research should employ longitudinal and multi-method designs—including behavioural tasks, clinical interviews, and informant reports—to better clarify causal relationships and mitigate biases inherent to self-report. Expanding to more diverse and gender-balanced samples, including clinical populations, will enhance generalizability and allow examination of potential subgroup differences.

Overall, the present findings contribute to understanding the mechanisms linking excessive alcohol use, emotion regulation, and suicidal behaviour. The data suggest that maladaptive emotion regulation strategies—particularly Negative Self-Focus, catastrophic Appraisal, and low Tolerance—amplify the impact of alcohol use on suicidal vulnerability. Conversely, strengthening adaptive coping and distress tolerance may buffer this effect.

These insights underscore that interventions designed to enhance emotional regulation skills should be integrated into prevention and treatment programs for individuals with substance use problems. By improving tolerance of distress and promoting adaptive coping, such programs could reduce both alcohol misuse and suicidal behaviour, ultimately supporting more effective and compassionate clinical practice within the field of addictions.

Funding

This work was supported by the José Castillejo Grant (CAS2023/00397) awarded by the MCIN/AEI/10.13039/501100011033. The funding body provided financial support only and had no role in the study design, data collection, analysis, or the writing of this manuscript.

Authors' contributions

CAC: Conceptualization, investigation, writing – original draft, visualization, methodology, formal analysis, writing – review & editing.
GEC: Methodology, formal analysis, visualization, writing – original draft, writing – review & editing.
RMN: Conceptualization, Funding Acquisition, Writing – original draft, Writing – review & editing.

Acknowledgments

None.

Conflicts of interest

The authors declare no conflicts of interest.

References

Aldao, A., Nolen-Hoeksema, S. & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review*, *30*(2), 217–237. https://doi.org/10.1016/j.cpr.2009.11.004

Al-Halabí, S. & Fonseca-Pedrero, E. (2023). Are there Common Components in Effective Psychotherapies for Suicidal Behavior? Implications for Professional Practice. *Revista de Psicoterapia*, *34*(124), 83–99. https://doi.org/10.5944/rdp.v34i124.37050

Al-Halabí, S. & Fonseca-Pedrero, E. (2024). Editorial for Special Issue on Understanding and Prevention of Suicidal Behavior: Humanizing Care and Integrating Social Determinants. *Psicothema*, *36*(4), 309–318. https://doi.org/10.7334/psicothema2024.341

Anestis, M. D., Bagge, C. L., Tull, M. T. & Joiner, T. E. (2011). Clarifying the role of emotion dysregulation in the interpersonal-psychological theory of suicidal behavior in an undergraduate sample. *Journal of Psychiatric Research*, *45*(5), 603–611. https://doi.org/10.1016/j.jpsychires.2010.10.013

Antuña-Camblor, C., Esteller-Collado, G., Muñoz-Navarro, R., Rabito-Alcón, M. F. & Rodríguez-Díaz, F. J. (2024).

Emotional Disorders, Distress Tolerance and Suicide Risk: A Mediation Model. *OMEGA - Journal of Death and Dying*. https://doi.org/10.1177/00302228241299287

Bousoño, M., Al-Halabí, S., Burón, P., Garrido, M., Díaz-Mesa, E. M., Galván, G., García-Álvarez, L., Velasco, Á., Rodríguez-Revuelta, J., Wasserman, C., Carli, V., Hoven, C., Sarchiapone, M., Wasserman, D., Bousoño, M., García-Portilla, M. P., Iglesias, C., Sáiz, P. A. & Bobes, J. (2021). Consumo de alcohol y factores de riesgo de conductas autolesivas en adolescentes españoles. *Adicciones*, *33*(1), 53. https://doi.org/10.20882/adicciones.1239

Fletcher, J. M. (2019). Estimating causal effects of alcohol access and use on a broad set of risky behaviors: Regression discontinuity evidence. *Contemporary Economic Policy*, *37*(3), 427–448. https://doi.org/10.1111/coep.12405

Fonseca-Pedrero, E. & Al-Halabí, S. (2024). Sobre la conducta suicida y las conductas adictivas. *Adicciones*, *36*(2), 121–128. https://doi.org/10.20882/adicciones.2074

Glantz, M. D., Bharat, C., Degenhardt, L., Sampson, N. A., Scott, K. M., Lim, C. C. W., Al-Hamzawi, A., Alonso, J., Andrade, L. H., Cardoso, G., De Girolamo, G., Gureje, O., He, Y., Hinkov, H., Karam, E. G., Karam, G., Kovess-Masfety, V., Lasebikan, V., Lee, S.,… Kessler, R. C. (2020). The epidemiology of alcohol use disorders cross-nationally: Findings from the World Mental Health Surveys. *Addictive Behaviors*, *102*, 106128. https://doi.org/10.1016/j.addbeh.2019.106128

Griswold, M. G., Fullman, N., Hawley, C., Arian, N., Zimsen, S. R. M., Tymeson, H. D., Venkateswaran, V., Tapp, A. D., Forouzanfar, M. H., Salama, J. S., Abate, K. H., Abate, D., Abay, S. M., Abbafati, C., Abdulkader, R. S., Abebe, Z., Aboyans, V., Abrar, M. M., Acharya, P.,… Gakidou, E. (2018). Alcohol use and burden for 195 countries and territories, 1990–2016: A systematic analysis for the Global Burden of Disease Study 2016. *The Lancet*, *392*(10152), 1015–1035. https://doi.org/10.1016/S0140-6736(18)31310-2

Hawton, K., Bergen, H., Cooper, J., Turnbull, P., Waters, K., Ness, J. & Kapur, N. (2015). Suicide following self-harm: Findings from the Multicentre Study of self-harm in England, 2000–2012. *Journal of Affective Disorders*, *175*, 147–151. https://doi.org/10.1016/j.jad.2014.12.062

Hawton, K., Knipe, D. & Pirkis, J. (2024). Restriction of access to means used for suicide. *The Lancet Public Health*, *9*(10), e796–e801. https://doi.org/10.1016/S2468-2667(24)00157-9

Joiner, T. (2005). *Why people die by suicide*. Harvard University Press.

Kranzler, H. R. & Soyka, M. (2018). Diagnosis and Pharmacotherapy of Alcohol Use Disorder. *JAMA*, *320*(8), 815. https://doi.org/10.1001/jama.2018.11406

Krug, E. G., Mercy, J. A., Dahlberg, L. L. & Zwi, A. B. (2002). The world report on violence and health. *The Lancet*, *360*(9339), 1083–1088. https://doi.org/10.1016/S0140-6736(02)11133-0

Linehan, M. M. (1993). *Cognitive behavioral therapy of borderline personality disorder.* Guilford Press.

Melli, G., Chiorri, C., Lebruto, A., Drabik, M. J., Puccetti, C. & Caccico, L. (2021). Psychometric Properties of the Italian Version of the Distress Tolerance Scale (DTS). *Journal of Psychopathology and Behavioral Assessment*, *43*(3), 698–706. https://doi.org/10.1007/s10862-021-09876-1

Neacsiu, A. D., Eberle, J. W., Kramer, R., Wiesmann, T. & Linehan, M. M. (2014). Dialectical behavior therapy skills for transdiagnostic emotion dysregulation: A pilot randomized controlled trial. *Behaviour Research and Therapy*, *59*, 40–51. https://doi.org/10.1016/j.brat.2014.05.005

O'Connor, R. C. & Kirtley, O. J. (2018). The integrated motivational–volitional model of suicidal behaviour. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *373*(1754), 20170268. https://doi.org/10.1098/rstb.2017.0268

Pérula de Torres, L. A., Fernández-García, J. A., Arias-Vega, R., Muriel-Palomino, M., Márquez-Rebollo, E. & Ruiz-Moral, R. (2005). Validación del cuestionario AUDIT para la identificación del consumo de riesgo y de los trastornos por el uso de alcohol en mujeres. *Atención Primaria*, *36*(9), 499–506. https://doi.org/10.1016/S0212-6567(05)70552-7

Rehm, J., Gmel, G. E., Gmel, G., Hasan, O. S. M., Imtiaz, S., Popova, S., Probst, C., Roerecke, M., Room, R., Samokhvalov, A. V., Shield, K. D. & Shuper, P. A. (2017). The relationship between different dimensions of alcohol use and the burden of disease—an update. *Addiction*, *112*(6), 968–1001. https://doi.org/10.1111/add.13757

Romero, D. H., Riggs, S. A., Raiche, E., McGuffin, J. & Captari, L. E. (2020). Attachment, coping, and psychological symptoms among military veterans and active duty personnel. *Anxiety, Stress, & Coping*, *33*(3), 326–341. https://doi.org/10.1080/10615806.2020.1723008

Rottenberg, J., Gross, J. J. & Gotlib, I. H. (2005). Emotion Context Insensitivity in Major Depressive Disorder. *Journal of Abnormal Psychology*, *114*(4), 627–639. https://doi.org/10.1037/0021-843X.114.4.627

Sandín, B. & Chorot, P. (2003). Cuestionario de afrontamiento del estrés (CAE) : Desarrollo y validación preliminar. *Revista de Psicopatología y Psicología Clínica*, *8*(1). https://doi.org/10.5944/rppc.vol.8.num.1.2003.3941

Sandín, B., Simons, J. S., Valiente, R., Simons, R. M. & Chorot, P. (2017). Psychometric properties of the spanish version of The Distress Tolerance Scale and its relationship with personality and psychopathological symptoms. *Psicothema*, *29*(3), 421–428.

Saunders, J. B., Aasland, O. G., Babor, T. F., De la Fuente, J. R. & Grant, M. (1993). Development of the Alcohol Use

Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption-II. *Addiction*, *88*(6), 791–804. https://doi.org/10.1111/j.1360-0443.1993.tb02093.x

Simons, J. S. & Gaher, R. M. (2005). The Distress Tolerance Scale: Development and Validation of a Self-Report Measure. *Motivation and Emotion*, *29*(2), 83–102. https://doi.org/10.1007/s11031-005-7955-3

Spanish Ministry of Health. (2025). *Encuesta sobre el alcohol y otras drogas en España en 2024 (EDADES)*. https://pnsd.sanidad.gob.es/profesionales/sistemasInformacion/sistemaInformacion/pdf/2024_Informe_EDADES.pdf

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

Vujanovic, A. A., Berenz, E. C. & Bakhshaie, J. (2017). Multimodal Examination of Distress Tolerance and Suicidality in Acute-Care Psychiatric Inpatients. *Journal of Experimental Psychopathology*, *8*(4), 376–389. https://doi.org/10.5127/jep.059416

Waesche, M. C., Clark, C. B. & Cropsey, K. L. (2016). The Connection Between Thwarted Belongingness, Alcohol Consumption, Suicidal, and Homicidal Ideation in a Criminal Justice Sample. *Journal of Addiction Medicine*, *10*(6), 437–442. https://doi.org/10.1097/ADM.0000000000000257

Wilcox, H. C., Conner, K. R. & Caine, E. D. (2004). Association of alcohol and drug use disorders and completed suicide: An empirical review of cohort studies. *Drug and Alcohol Dependence*, *76*, S11–S19. https://doi.org/10.1016/j.drugalcdep.2004.08.003

World Health Organization. (2019). *Global status report on alcohol and health 2018*.

World Health Organization. (2021). *Suicide worldwide in 2019*. https://www.who.int/publications/i/item/9789240026643