

OPEN ACCESS

EDITED BY
Darren Moore,
University of Exeter, United Kingdom

REVIEWED BY Héctor Cabello, Secretaria de Salud, Mexico

*CORRESPONDENCE Iván Antonio García-Montalvo ⊠ ivan.garcia@itoaxaca.edu.mx

RECEIVED 15 April 2024 ACCEPTED 02 September 2024 PUBLISHED 17 September 2024

CITATION

López-Ramírez E, Azcaray-Rivera HR, García-Montalvo GO, Martínez-López M, Matías-Pérez D and García-Montalvo IA (2024) Mental health and higher education: confronting suicidal ideation in Mexico. *Front. Educ.* 9:1418011. doi: 10.3389/feduc.2024.1418011

COPYRIGHT

© 2024 López-Ramírez, Azcaray-Rivera, García-Montalvo, Martínez-López, Matías-Pérez and García-Montalvo. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these

Mental health and higher education: confronting suicidal ideation in Mexico

Enrique López-Ramírez¹, Héctor Ramón Azcaray-Rivera², Gildardo Oswaldo García-Montalvo³, Moisés Martínez-López³, Diana Matías-Pérez¹ and Iván Antonio García-Montalvo¹*

¹División de Estudios de Posgrado e Investigación, Tecnológico Nacional de México/Instituto Tecnológico de Oaxaca, Oaxaca, Mexico, ²Departamento de Ingeniería Electrónica, Tecnológico Nacional de México/Instituto Tecnológico del Oaxaca, Oaxaca, Mexico, ³Departamento de Ingeniería Industrial, Tecnológico Nacional de México/Instituto Tecnológico del Oaxaca, Oaxaca, Mexico

KEYWORDS

mental health, suicidal ideation, university, depression, Mexico

1 Introduction

Suicide is a public health problem that kills at least 700,000 lives each year worldwide (WHO, 2021), which involves a ratio of 9.2 suicides per 100,000 people (World Bank Open Data, 2024). Many studies reported an increase in suicidal ideation in several countries since the onset of the pandemic (Brailovskaia et al., 2023). Suicidal ideation (SI) is a crucial risk factor leading to suicide (Franklin et al., 2017) and involves fleeting thoughts that life is not worth living through concrete plans to end one's own life (Diekstra and Garnefski, 1995; Klonsky et al., 2016). In Mexico, suicide deaths have increased considerably; in 2017 alone, the suicide rate was 5.3 per 100,000 inhabitants, while by 2022, it will increase to 6.3, which is equivalent to 1629 more suicides in 2022 compared to what occurred in 2017 (INEGI, 2023). The age group 15-29 years is the one in which most cases of suicide occur, followed by the population 30-59 years. This cause of death is much more frequent in men than in women, and the suicide rate increased considerably during the social confinement by COVID-19. The university system in Mexico is a diverse and complex network that reflects the country's cultural and social richness. With a structure that includes both public and private institutions, this system has developed over the years to meet the growing educational demands of the population. At the heart of this system are public universities, which are predominantly autonomous and account for more than half of higher education enrollment. These institutions are dedicated to teaching and play a crucial role in research and cultural outreach. The National Autonomous University of Mexico (UNAM) and the National Polytechnic Institute (IPN) are prominent examples, offering various academic programs and fostering research in multiple disciplines (Jaimes-Rodríguez et al., 2015).

On the other hand, private universities have grown significantly, diversifying the educational offer, and contributing to the training of professionals in the country. This expansion has been accompanied by increased distance education, facilitated by technological progress, which allows students to access academic programs without needing to attend classrooms physically. The system also faces challenges, such as the need to improve educational quality and the relevance of programs about the labor market. However, various policies and programs have been implemented to strengthen higher education, including creating new institutions and improving existing ones (Moshtari and Safarpour, 2024).

2 Current overview of suicidal ideation in higher education

The understanding of the issue of suicide among college students has remained very complex even for the scientific community, which keeps the discussion open between measurement, prediction, prevention, and specialized care. It becomes more problematic when misconceptions about the issue are held among educational institutions, which can make suicide prevention efforts problematic and can lead to ineffective intervention (Bender and Jester, 2024). In Mexico, young people between 18 and 29 years of age had the highest suicide rate, to the extent that by 2021, 10 deaths per 100,000 inhabitants were estimated (Valdez-Santiago et al., 2023).

According to some results shown in meta-analyses and longitudinal studies, the rates of suicidal ideation, suicide attempts, and self-injury increased by 10.81%, 4.68%, and 9.63% during the COVID-19 pandemic compared to data from previous studies before the pandemic (So et al., 2024). Another meta-analysis conducted in 2018 reported that the prevalence of suicidal ideation at 12 months in the college student population was 10.6% and for suicidal attempts 1.2%, while, in the pandemic setting, the prevalence of suicidal ideation was 6.7%—19% (Jones et al., 2023). Likewise, a study reported by Ghazali et al. (2024) noted that COVID disease generated a higher percentage of students with depression, anxiety, and suicidal ideation.

The prevalence of mental disorders on college campuses has increased in recent years (Esparza-Reig and Julián, 2024). Furthermore, social isolation caused by COVID-19 led to an increased risk of depression in schoolchildren; for example, not having money to eat, anxiety, fights with family members, academic problems were significantly related to mental health problems, specifically suicidal ideation, suicide attempts, and depression (Gichangi et al., 2024; Ran et al., 2024). The impact of isolation affected mainly youth from lower socioeconomic backgrounds (Mathiyazhagan et al., 2024), where social inequality, parental unemployment, poverty, and even domestic violence increase depression and decrease the desire to live.

For many students, completing university studies becomes one of the biggest goals in their lives, so dropping out of school due to confinement may have been a painful experience. During the pandemic, high-intensity social distancing measures were applied that forced changes in lifestyles; some students had to drop out of school (Choi et al., 2024), others suffered loneliness, isolation, hopelessness, or depression, and some others committed suicide.

Considering that, globally, more than 75% of suicides have occurred in low-income countries (Mathiyazhagan et al., 2024), it is imperative to focus attention on students who may be experiencing feelings of suicidal ideation, especially those who come from low-income families. According to the interpersonal-psychological theory of suicide that has become a predominant framework for understanding and ideation of suicidal behavior, through this theory, risk factors are conceptualized through three constructs: perceived burden, frustrated belonging, and acquired capability (Wester et al., 2024). Aspects may be present with greater frequency in young people in families in extreme poverty.

The increasing prevalence of college mental health problems requires the availability of readily accessible mental health services on an ongoing basis, not just in emergencies such as the pandemic (Bangalan and Agnes, 2024). Sometimes, greater attention is given to people who manifest suicidal ideation or severe depression that may be visible. But there is depression that may not manifest itself in observable behavior and may be so subtle that it often goes unnoticed: mild depression. In this regard, there is still a knowledge gap in terms of studies on mild depressive disorders and suicidal ideation. Most studies have focused on major depressive disorders (Wang et al., 2024).

The public perception of suicide is generally negative. There is a belief that those who commit suicide are selfish. However, some studies have shown, through the analysis of cases of people who have committed suicide, that the opposite has been the case, that they are people for whom the welfare of others is paramount (Van Orden et al., 2010; Kheibari et al., 2024). It is, therefore, essential to transmit and reinforce the idea that it is okay not to be well, that it is expected in a world where there are so many difficulties, atrocities, and injustices, and that asking for help is an excellent start to feeling better.

It is not very regular or frequent for educational institutions to conduct evaluations on suicidal ideation in the total student population; usually, in Mexican institutions, it is not customary to talk about suicide. Marutani et al. (2024) report that one in four students suffering from mental health problems do not seek psychological support or assistance. Given the high prevalence reported in the literature on suicidal ideation in students, externalization of desires not wanting to continue living should be normalized. Institutional support should strengthen the ability to ask for help. It is pertinent to give a voice to people with suicidal ideation; they are not just a number or a statistic; they are people with repressed feelings and with the desire to be heard, the idea that suicidality is irrational and pathological should be abandoned (Kheibari et al., 2024). For example, Gould et al. (2024) demonstrated that through large-scale suicide prevention media campaigns such as the "Breaking the Silence" campaign, it is possible to increase awareness of the resources available for suicide prevention.

Regarding mental health and suicidal ideation, stigma can also expand its scope and become a self-stigma that can make the student feel paralyzed and unable to continue their life and ask for help (Morgan, 2021). Help-seeking has become a critical factor in facilitating intervention. It is categorized into formal and informal sources of support, and it has been reported that young people prefer to seek help through informal sources such as friends, family, or Internet sites. However, there are several barriers to help-seeking: negative attitudes toward help-seeking, social stigma caused by suicidal ideation, and distrust of an unknown professional (Davies et al., 2024).

It is also necessary to inquire into the understanding of how students perceive social support in institutions, distinguishing these two essential concepts, perception of support and support received, which are closely related to suicidal ideation (Wester et al., 2024). Fortunately, suicidal ideation does not necessarily lead to suicidal action; however, it can provide an opportunity to reexamine the purpose of life in individuals or can even be considered as an

element that, if detected, allows for possibilities to intervene to strengthen the other possible risk factors present (Nan et al., 2023). In this sense, it is also necessary for institutions to train their staff to provide an environment in which students feel confident enough to approach them and that they will be listened to and cared for with compassion.

Compassion-based therapy has demonstrated benefits in the treatment of post-traumatic stress disorder. The fundamental basis of this therapy is to treat shame and self-criticism, encompassing the perspectives of attachment, interpersonal, self-concept, and social concepts, using cognitive and behavioral theory (Vidal and Soldevilla, 2023). It has been shown that compassion-based intervention allows working with shame and guilt that can become disabled in help-seeking (Dawood et al., 2024). In this sense, students' social capital needs to be strengthened from a holistic approach (Wallengren-Lynch, 2024) that could help create a network of support and connection between friends, family, and even teachers.

Based on Erikson's psychosocial theory, Sekowski et al. (2024) hypothesized that a young person without a clear sense of identity and adequate capacity for intimacy with others may develop a painful sense of maladjustment and thus suicidal ideation as an escape from unbearable psychological pain. An essential and potential element in suicide prevention is compassion, which deserves more attention because its effects on reducing suicidal ideation have been proven (Allegro and Van Vliet, 2024). There is ample evidence that self-compassion has served as a protective factor for suicidal ideation (Suh and Jeong, 2021; Scocco et al., 2022). However, the relationship between compassion and suicidal ideation has been little explored.

The university system in Mexico faces challenges related to student mental health. Suicidal ideation understood as thoughts or ideas about taking one's own life, is a worrying problem that affects a significant part of the student population. Several studies have shown that factors such as academic stress, performance pressure, anxiety, and depression can contribute to the development of suicidal thoughts among young university students. Some universities have implemented psychological support programs and mental health awareness campaigns to address this issue. However, much remains to be done to ensure that all students have access to adequate and timely mental health services within the university system (Fresán et al., 2021).

Universities in Mexico have begun to implement various psychological support programs, recognizing the importance of mental health in the academic life of their students. These programs are designed to help young people face the emotional and psychological challenges that may arise during their university careers. One of the most common approaches is the University Counseling Service, where mental health professionals, such as psychologists and counselors, provide confidential one-on-one sessions. These sessions allow students to discuss their concerns and receive specialized guidance, addressing issues ranging from academic stress to difficult personal situations (Dosil-Santamaria et al., 2022).

In addition, many institutions organize workshops and support groups that focus on stress management and coping skills development. These spaces provide helpful tools and foster community and mutual support among students (Tamminga et al., 2023). Some universities, such as the University of Guadalajara, have specific psychological care and training programs. Through these programs, psychological counseling and counseling services are offered, as well as workshops and conferences that promote the integral development of the university community.

Access to online resources has also grown, allowing students to access educational materials and interactive tools to address their mental health challenges from anywhere, anytime (Pretorius and Coyle, 2021). This is especially valuable for those reluctant to seek help in person. In the case of the National Autonomous University of Mexico (UNAM), mental health clinics have been established that offer comprehensive care, including psychiatry and psychology services. These clinics are available to students and the community at large, broadening the scope of their support [Clinic of the Mental Health Program of the Faculty of Medicine of the National Autonomous University of Mexico (UNAM), 2020].

Programs such as the Universidad Veracruzana's Psychological Support Program offer psychological assessment and brief psychotherapy services, addressing both the needs of students and the community at large. This comprehensive approach seeks to help students overcome their difficulties and train trained professionals in the clinical area. Evaluation of these programs allows universities to measure their effectiveness and is essential for continuous improvement of services. By identifying areas of success and areas that require attention, institutions can tailor their approaches and resources to meet the needs of their students better, thus contributing to their overall well-being and a healthier academic environment (Cerolini et al., 2023).

3 Conclusion

It is essential that school authorities and researchers take into more significant consideration suicidal ideation in students, establish interventions that foster meaning in life, love for the profession, and hope for a better future. Meaning in life and purpose are concepts borrowed from positive psychology and Eastern philosophy for treating various mental health-related disorders. They have been associated with psychological wellbeing and are considered personal resources to cope with multiple challenges and drastic changes that occur in life (Mutuyimana and Maercker, 2024). We suggest implementing interventions focused on mild depressive disorders and suicidal ideation as risk factors (Wang et al., 2024) in student populations belonging to minority groups or who may be considered vulnerable in an educational institution. Currently, the union of positive psychology with cognitive behavioral therapy has been shown to help prevent various mental health disorders. More studies are needed to demonstrate the effectiveness of compassion-based therapy in reducing suicidal ideation by improving strengths and coping skills. The evidence shown in studies published in the literature on the efficacy of prevention programs to reduce suicidal ideation based on compassion, self-compassion, resilience, meaning, and purpose in life, among others, has not been enough to design strategies for students to feel protected in their educational institution. Each student's life is a priority; they are human beings searching for the

fulfillment of their goals and dreams so that they become an entry and exit number, as happens with the indicators of the schools that seek to attract many students. Still, the interest in their subjective wellbeing seems to be the last thing that interests them.

Author contributions

EL-R: Conceptualization, Formal analysis, Investigation, Methodology, Visualization, Writing – original draft, Writing – review & editing. HA-R: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Visualization, Writing – original draft. GG-M: Investigation, Methodology, Supervision, Validation, Visualization, Writing – original draft. MM-L: Conceptualization, Investigation, Methodology, Supervision, Validation, Visualization, Writing – review & editing. DM-P: Conceptualization, Investigation, Methodology, Validation, Visualization, Writing – review & editing. IG-M: Conceptualization, Formal analysis, Investigation, Supervision, Visualization, Writing – original draft, Writing – review & editing.

References

Allegro, H. N., and Van Vliet, K. J. (2024). The lived experience and impact of compassion for others in undergraduate students' recovery from suicidal ideation. *Emerg. Adulthood* 12:21676968241231025. doi: 10.1177/21676968241231025

Bangalan, S. G., and Agnes, M. C. A. (2024). A mixed-methods study on the assessment of the mental health concerns among university students in the Philippines. *Curr. Psychol.* 43, 19804–19819. doi: 10.1007/s12144-024-05777-0

Bender, K. M., and Jester, K. M. (2024). Assessing student affairs practitioners' knowledge, opinion, and actions around college student suicide. *J. Stud. Aff. Res. Pract.* 61, 56–71. doi: 10.1080/19496591.2022.2133609

Brailovskaia, J., Truskauskaite-Kuneviciene, I., Kazlauskas, E., Gelezelyte, O., Teismann, T., Margraf, J., et al. (2023). Physical activity, mental and physical health during the Covid-19 outbreak: longitudinal predictors of suicide ideation in Germany. *J. Public Health* 31, 1473–1483. doi: 10.1007/s10389-022-01708-0

Cerolini, S., Zagaria, A., Franchini, C., Maniaci, V. G., Fortunato, A., Petrocchi, C., et al. (2023). Psychological counseling among university students worldwide: a systematic review. *Eur. J. Investig. Health Psychol. Educ.* 13, 1831–1849. doi: 10.3390/ejihpe13090133

Choi, Y., Park, E. J., Lee, S. Y., Kim, H. Y., and Lee, W. Y. (2024). Mental health effects associated with COVID-19 financial assistance in South Korea: a comparison of employment status. *BMC Public Health* 24, 1–10. doi: 10.1186/s12889-024-18283-6

Clinic of the Mental Health Program of the Faculty of Medicine of the National Autonomous University of Mexico (UNAM) (2020). UNAM Mental Health Program has provided more than 23 thousand teleconsultations. Available at: https://saluddigital.com/en/noticias/programa-de-salud-mental-de-la-unam-habrindado-mas-de-23-mil-teleconsultas/ (accessed August 23, 2024).

Davies, P., Veresova, M., Bailey, E., Rice, S., and Robinson, J. (2024). Young people's disclosure of suicidal thoughts and behavior: a scoping review. *J. Affect. Disord. Rep.* 16:100764. doi: 10.1016/j.jadr.2024.100764

Dawood, R., Vosper, J., Irons, C., Gibson, S., and Brown, G. (2024). Exploring the roles of compassion and post-traumatic stress disorder on global distress after sexual trauma. *Br. J. Clin. Psychol.* 63, 378–393. doi: 10.1111/bjc.

Diekstra, R. F., and Garnefski, N. (1995). On the nature, magnitude, and causality of suicidal behaviors: an international perspective. *Suicide Life Threat. Behav.* 25, 36–57. doi: 10.1111/j.1943-278X.1995.tb00391.x

Dosil-Santamaria, M., Ozamiz-Etxebarria, N., Idoiaga-Mondragon, N., Reyes-Sosa, H., and Santabárbara, J. (2022). Emotional state of Mexican university students in the COVID-19 pandemic. *Int. J. Environ. Res. Public Health* 19:2155. doi: 10.3390/ijerph19042155

Esparza-Reig, J., and Julián, M. (2024). Association between suicidal ideation and burnout: a meta-analysis. $Death\ Studies\ 1-12$. doi: 10.1080/07481187.2023.2300064

Funding

The author(s) declare that no financial support was received for the research, authorship, and/or publication of this article.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

Franklin, J. C., Ribeiro, J. D., Fox, K. R., Bentley, K. H., Kleiman, E. M., Huang, X., et al. (2017). Risk factors for suicidal thoughts and behaviors: a meta-analysis of 50 years of research. *Psychol. Bull.* 143, 187–232. doi: 10.1037/bul0000084

Fresán, A., Guízar-Sánchez, D., Yoldi-Negrete, M., Robles-García, R., Tovilla-Zárate, C. A., Heinze, G., et al. (2021). Identifying risk factors for self-reported mental health problems in psychiatry trainees and psychiatrists in Mexico. *Acad, Psychiatry* 45, 698–707. doi: 10.1007/s40596-021-01506-y

Ghazali, S. R., Chen, Y. Y., Ling, A. A., Kasnan, N. I. K., Driver, E. S., Mahran, N. N., et al. (2024). Psychological trauma, anxiety, and depression among university students during first phase of COVID-19 movement control order in Malaysia. *Int. J. Adv. Couns.* 46, 130–148. doi: 10.1007/s10447-023-09538-9

Gichangi, P. B., Byrne, M. E., Thiongo, M. N., Devoto, B., and Wood, S. N. (2024). Impact of COVID-19 on the mental health of adolescents and youth in Nairobi, Kenya. *Front. Psychiatry* 14:1209836. doi: 10.3389/fpsyt.2023.1209836

Gould, M. S., Lake, A. M., Chowdhury, S., Noble, E., Keyes, K. M., Gimbrone, C., et al. (2024). "Breaking the silence" suicide prevention media campaign in Oregon: evaluation of impact on help-seeking and suicide mortality. *Suicide Life-Threat. Behav.* 54, 361–369. doi: 10.1111/sltb.13047

INEGI (2023). *Día mundial para la prevención del suicidio*. Available at: https://www.inegi.org.mx/contenidos/saladeprensa/aproposito/2023/EAP_Suicidio23.pdf (accessed February 27, 2024).

Jaimes-Rodríguez, N., Cardoso-Jiménez, D., and Bobadilla-Beltrán, S. (2015). Higher education in Mexico, a claim with social commitment. *Rev. Iberoam. Investig. Desarro. Educ.* 5, 182–196. doi: 10.23913/ride.v5i10.109

Jones, L. B., Vereschagin, M., Wang, A. Y., Munthali, R. J., Pei, J., Richardson, C. G., et al. (2023). Suicidal ideation amongst university students during the COVID-19 pandemic: time trends and risk factors. *Can. J. Psychiatry* 68, 531–546. doi: 10.1177/07067437221140375

Kheibari, A., Lawson, S. G., Szechy, K., and Sheehan, R. (2024). Suicide and the COVID-19 pandemic: a qualitative study of discourse on an online pro-choice for suicide discussion forum. *Death Stud.* 1–8. doi: 10.1080/07481187.2024.2326927

Klonsky, E. D., May, A. M., and Saffer, B. Y. (2016). Suicide, suicide attempts, and suicidal ideation. *Annu. Rev. Clin. Psychol.* 12, 307–330. doi: 10.1146/annurev-clinpsy-021815-093204

Marutani, T., Yasumi, K., Saito, K., Ibaraki, T., and Takayama, J. Y. (2024). Suicide among national university graduate students in Japan from 2002 to 2021. *Psychiatry Clin. Neurosci. Rep.* 3:e180. doi: 10.1002/pcn5.180

Mathiyazhagan, S., Kulandai Raj, F., Fitrianingsih, K., Raja, V., and Mayom, D. (2024). Addressing socioeconomic determinants of youth suicidal ideation: lessons from a youth development approach in India. *Community Ment. Health J.* 60, 340–353. doi: 10.1007/s10597-023-01177-z

Morgan, E. (2021). Mental illness and suicide: combating stigma with compassion. $VOICES\ of\ USU,\ 125.$

Moshtari, M., and Safarpour, A. (2024). Challenges and strategies for the internationalization of higher education in low-income East African countries. *High Educ.* 87, 89–109. doi: 10.1007/s10734-023-00994-1

Mutuyimana, C., and Maercker, A. (2024). How meaning in life and vitality are associated with posttrauma outcomes: a systematic review. *J. Trauma. Stress* 37, 551–562. doi: 10.1002/jts.23040

Nan, J., Salina, N., Chong, S. T., and Jiang, H. J. (2023). Trajectory of suicidal ideation among medical students during the COVID-19 pandemic: the role of childhood trauma. *BMC Psychiatry* 23:90. doi: 10.1186/s12888-023-04582-6

Pretorius, C., and Coyle, D. (2021). Young people's use of digital tools to support their mental health during COVID-19 restrictions. *Front. Digit. Health* 3:763876. doi: 10.3389/fdgth.2021.763876

Ran, M. S., Xiao, Y., and Rohlof, H. (2024). The impact of COVID-19 on internet addiction, suicidal behavior, and study behavior in adolescents in various cultural contexts. *Front. Psychiatry* 15:1375244. doi: 10.3389/fpsyt.2024.1375244

Scocco, P., Arbien, M., Totaro, S., Guadagnini, M., Nucci, M., and SOPROXI Team (2022). Panta Rhei: a non-randomized intervention trial on the effectiveness of mindfulness-self-compassion weekend retreats for people bereaved by suicide. *Mindfulness* 13, 1307–1319. doi: 10.1007/s12671-022-01880-0

Sekowski, M., Wielogórska, M., and Lester, D. (2024). Psychosocial identity, intimacy and suicidality in young adults. Arch. Suicide Res. 1-15. doi: 10.1080/13811118.2023.2300320

So, W. W. Y., Fong, T. C. T., Woo, B. P. Y., and Yip, P. S. F. (2024). Psychosocial and financial well-being mediated the effects of COVID-19 distress on suicidality: a serial mediation model among Hong Kong young adults. *Soc. Psychiatry Psychiatr. Epidemiol.* 59, 165–174. doi: 10.1007/s00127-023-02501-4

Suh, H., and Jeong, J. (2021). Association of self-compassion with suicidal thoughts and behaviors and non-suicidal self injury: a meta-analysis. *Front. Psychol.* 12:633482. doi: 10.3389/fpsyg.2021.633482

Tamminga, S. J., Emal, L. M., Boschman, J. S., Levasseur, A., Thota, A., Ruotsalainen, J. H., et al. (2023). Individual-level interventions for reducing occupational stress in healthcare workers. *Cochrane Database Syst. Rev.* 5:CD002892. doi: 10.1002/14651858.CD002892.pub6

Valdez-Santiago, R., Hernández, A. V., Arenas-Monreal, L., Benjet, C., and García, A. V. (2023). Conducta suicida en México: análisis comparativo entre población adolescente y adulta. *Salud Pública Méx.* 65, s110–s116. doi: 10.21149/14815

Van Orden, K. A., Witte, T. K., Cukrowicz, K. C., Braithwaite, S. R., Selby, E. A., Joiner, T. E., et al. (2010). The interpersonal theory of suicide. *Psychol Rev.* 117, 575–600. doi: 10.1037/a0018697

Vidal, J., and Soldevilla, J. M. (2023). Effect of compassion-focused therapy on self-criticism and self-soothing: aA meta-analysis. *Br. J. Clin. Psychol.* 62, 70–81. doi: 10.1111/bjc.12394

Wallengren-Lynch, M. (2024). From compassion to action: school social workers at the forefront of emergency response. *Nordic Soc. Work Res.* 1–16. doi: 10.1080/2156857X.2024.2309187

Wang, N., Yan, X., Imm, K., Xu, T., Li, S., Gawronska, J., et al. (2024). Racial and ethnic disparities in prevalence and correlates of depressive symptoms and suicidal ideation among adults in the United States, 2017–2020 pre-pandemic. *J. Affect. Disord.* 345, 272–283. doi: 10.1016/j.jad.2023.10.138

Wester, K. L., Morris, C. W., Aragon, E., and McAllister, C. (2024). School engagement and interpersonal–psychological theory of suicide: identity groups differences. *J. Couns. Dev.* 102, 175–185. doi: 10.1002/jcad.12501

WHO (2021). World Health Organization Suicide Worldwide in 2019: Global Health Estimates. Available at: https://iris.who.int/bitstream/handle/10665/341728/9789240026643-eng.pdf?sequence=1 (accessed February 27, 2024).

World Bank Open Data (2024). Suicide Mortality Rate (per 100,000 Population). Available at: https://data.worldbank.org/indicator/SH.STA.SUIC.P5 (accessed February 27, 2024).