

The Importance of Culturally informed, Evidence-based Intervention: Laying the Groundwork for Comprehensive Suicide Prevention in Mexico

Daniel Sanchez-Morales,^{1,2} Mark Sinyor,^{1,3} Rosario Valdez-Santiago⁴

¹ Sunnybrook Health Sciences Centre, Department of Psychiatry, Toronto, ON, Canada.

² Ontario Institute for Studies in Education, Department of Applied Psychology and Human Development, University of Toronto, Toronto, ON, Canada.

³ Department of Psychiatry, University of Toronto, Toronto, Canada.

⁴ Guest Editor & Leader of the Line of Research on Injuries and Violence. Instituto Nacional de Salud Pública, Mexico.

Correspondence:

Mark Sinyor
Department of Psychiatry, Sunnybrook Health Sciences Centre. 2075 Bayview Avenue, Room FG22b, Toronto, ON, Canada, M4N 3M5.
Email: mark.sinyor@sunnybrook.ca

Citation:

Sanchez-Morales, D., Sinyor, M., & Valdez-Santiago, R. (2025). The Importance of Culturally informed, Evidence-based Intervention: Laying the Groundwork for Comprehensive Suicide Prevention in Mexico. *Salud Mental*, 48(5), 233-235 <https://doi.org/10.17711/SM.0185-3325.2025.026>

DOI: 10.17711/SM.0185-3325.2025.026



Suicide is an urgent public health problem worldwide. Although suicide rates in the Americas are close to the global average (9.2 per 100,000 individuals), it is the only world region that has seen an increase in suicide rates in recent years (World Health Organization [WHO], 2025). For this reason, comprehensive, evidence-based strategies to prevent suicide are urgently needed in countries across the Americas. The WHO's LIVE LIFE Implementation Guide for Suicide Prevention in Countries lists four key population-level, evidence-based strategies to lower suicide risk: "Limit access to the means of suicide; Interact with the media for responsible reporting of suicide; Foster socio-emotional life skills in adolescents; Early identify, assess, manage and follow up anyone who is affected by suicidal behaviours" (WHO, 2025). Broad implementation of just the first of these recommendations (means restriction) would prevent approximately 10,000 and 110,000 suicide deaths in males and females respectively over a decade (Lange et al., 2024).

This issue of *Salud Mental* presents a series of articles that collectively provide a context of youth mental health and suicide in Mexico, including the evaluation of specific promising interventions. Three of them correspond to the results of the research project titled "Educational Interventions for the Prevention of Suicidal Behavior in Adolescents in Mexico" (Arenas-Monreal et al., 2025, Fuentes et al., 2025 and Hermosillo et al., 2025).

Méndez & León (2025) identify a high prevalence of symptoms of anxiety, depression, and suicidal thoughts and behavior among university students. Suicidal thoughts, planning, and/or suicide attempts were reported by three out of ten females and two out of ten males, indicating a high, concerning burden. Hermosillo et al., 2025 conducted a multi-informant study of adolescents at a Mexico City clinic that yielded marked suicide-related sex differences. Among clinical adolescents, the prevalence of suicidal ideation and/or attempts was higher in males than females (41% vs. 33%). As expected, suicide-related outcomes correlated with psychopathology and psychopathology differed between the sexes. In keeping with previous findings (Chaplin & Aldao, 2013), females had higher levels of internalizing symptoms (such as depression and anxiety) whereas males had higher levels of externalizing factors (such as impulsivity and aggression). Females also reported more neurodevelopmental difficulties (such as cognitive deficits and social communication problems) and psychotic symptoms. Collectively, these findings point to the urgent need for efforts to address suicide and its antecedents in Mexico. Although population level sex differences exist, individual variations occur, and it is important to avoid an ecological fallacy. For example, some Mexican females had externalizing symptoms, while some males had internalizing symptoms. These symptoms confer risk, and warrant attention. The optimal approach would therefore include a combination of broad-based universal intervention for all youth and more selective intervention for specific at-risk groups (such as female adolescents with internalizing symptoms).

Arenas-Monreal et al., 2025 provide crucial data to inform universal programs for life skills. Their focus groups with middle schoolers identified three potential targets of intervention. Students expressed 1) a wish for more agency and shared decision-making with parents and teachers; 2) a desire for more assistance in problem-solving and

conflict resolution (including tools beyond quid pro quo negotiation (“giving a bribe”)); 3) hope for assistance with managing emotions such as anger and sadness, particularly in the context of challenging social circumstances (such as domestic violence). These findings provide a potentially useful roadmap for key targets of skills-based interventions for youth transitioning to adolescence. Notably, the authors also found that knowledge of suicide often occurred through peer-to-peer transmission. Interventions exist to address transmission (Pirkis, Bantjes, Gould, et al., 2024), and could be implemented at schools in Mexico.

The two last papers investigated the utility of specific interventions to address at-risk youth. Hermosillo et al., 2025 studied a dialectical behavioral therapy program for adolescents in Mexico (DBT-MXAU) (Hermosillo et al., 2025) given the promising evidence for DBT among suicide prevention therapies (Witt et al., 2020). DBT-MXAU had a medium effect size for reducing suicide risk measures, as well as enhancing emotional intelligence. Those with the highest suicide risk reported greater use of DBT skills.

Fuentes et al., 2025 examined an online intervention for Mexican high schoolers aimed at improving their knowledge of the impact of psychoactive drugs and life skills to protect against use. Although the researchers did not directly measure its impact on substance use, their results were promising. Those who received the intervention reported greater awareness of harms and displayed markers of potentially healthy future decision-making (such as resistance to peer pressure). Although the intervention does not directly address suicide, it is nevertheless potentially important for suicide prevention given the evidence that addressing substance use, particularly alcohol use, is a key target of population-based efforts (Pirkis, Bantjes, Dandona, et al., 2024).

Collectively, the above studies help lay the groundwork for more comprehensive, culturally informed suicide prevention in Mexico. In recent years, Mexico created a national suicide prevention program (PRONAPS) to address suicide and its antecedents through intersectoral action (Vazquez et al., 2024). This was an important step towards creating a Mexican National Suicide Prevention Strategy (NSPS). NSPSs are complex, multilevel, multicomponent targeted efforts using a whole-of-government approach to address the epidemiological, socioeconomic, cultural, ethical, legal, and political factors impacting suicide deaths in a country (Platt et al., 2019; Schlichthorst et al., 2023; Sinyor et al., 2024; WHO, 2025). There is some evidence of an overall positive impact of NSPSs on suicide deaths provided they are well-structured and grounded in evidence-based interventions, although most evidence comes from high-income countries like Finland (Platt et al., 2019).

In addition to the four key population-based interventions proposed by the WHO, NSPSs also often include awareness actions/campaigns, postvention, crisis intervention, surveillance and monitoring, and access to social and health services (Sinyor et al., 2024). To be effective, NSPSs and their components must address and respond to particular cultures and contexts, acknowledging how social determinants of health such as cultural, political, economic, social, clinical factors may impact their implementation (Pirkis et al., 2023). The findings from these studies indicate that Mexican youth are at an elevated risk for suicide but that targeted interventions may effectively mitigate this risk. Implementation remains a major limitation in countries worldwide, including Mexico. Mexico and other Latin American countries face political instability, low healthcare investment (including mental health), and limited research capacity and investment. These challenges hinder the implementation and evaluation of suicide prevention efforts. Yet there is hope! This issue of *Salud Mental* shows that Mexico produces high quality research. It can and should be built upon to devise and implement efforts and, hopefully, a comprehensive NSPS that will safeguard the wellbeing of Mexican youth.

REFERENCES

- Arenas-Monreal, L., Galvan-Estrada, I. G., Marín-Mendoza, E., Guillermo-Hernández, M. R., & Valdez-Santiago, R. (2025). Life Skills and Suicidal Behavior among Adolescent Students in Mexico. *Salud Mental*, 48(5), 253-261. <https://doi.org/10.17711/SM.0185-3325.2025.029>
- Chaplin, T. M., & Aldao, A. (2013). Gender differences in emotion expression in children: A meta-analytic review. *Psychological Bulletin*, 139(4), 735-765. <https://doi.org/10.1037/a0030737>
- Fuentes A., P. M. C., González-Forteza, C., Ruiz-Cortés, E. M., & Jiménez Tapia, A. (2025). Effectiveness of an Online Intervention to Prevent Psychoactive Drug Use by Expanding Knowledge of its Effects, Enhancing Life Skills and Increasing Risk Perception Designed for Mexican Middle School Students. *Salud Mental*, 48(5), 237-244. <https://doi.org/10.17711/SM.0185-3325.2025.027>
- Hermosillo de la Torre, A. E., Arteaga de Luna, S. M., Reyes Rodríguez, M., & Velasco Ramírez, J. L. (2025). Results of the DBT-MXAU Program for Suicide Prevention among Mexican Adolescents: A Quasi-experimental Study. *Salud Mental*, 48(5), 263-269. <https://doi.org/10.17711/SM.0185-3325.2025.030>
- Lange, S., Kim, K. V., Jiang, H., Shield, K. D., Rehm, J., Hennis, A. J., & Oliveira e Souza, R. (2024). Forecasting the impact of means restriction on the suicide mortality rate in the Region of the Americas: an ecological modeling study. *The Lancet Regional Health - Americas*, 36, 100831. <https://doi.org/10.1016/j.lana.2024.100831>
- Méndez Romero, N. A., & León Verdín, M. G. (2025) Anxiety, Depression and Suicidal Behavior in University Students in the State of Mexico. *Salud Mental*, 48(5), 245-251. <https://doi.org/10.17711/SM.0185-3325.2025.028>
- Pirkis, J., Bantjes, J., Dandona, R., Knipe, D., Pitman, A., Robinson, J., Silverman, M., & Hawton, K. (2024). Addressing key risk factors for suicide at a societal level. *The Lancet Public Health*, 9(10), e816-e824. [https://doi.org/10.1016/s2468-2667\(24\)00158-0](https://doi.org/10.1016/s2468-2667(24)00158-0)
- Pirkis, J., Bantjes, J., Gould, M., Niederkrotenthaler, T., Robinson, J., Sinyor, M., Ueda, M., & Hawton, K. (2024). Public health measures related to the transmissibility of suicide. *The Lancet Public Health*, 9(10), e807-e815. [https://doi.org/10.1016/s2468-2667\(24\)00153-1](https://doi.org/10.1016/s2468-2667(24)00153-1)

- Pirkis, J., Gunnell, D., Hawton, K., Hetrick, S., Niederkrotenthaler, T., Sinyor, M., Yip, P. S. F., & Robinson, J. (2023). A Public Health, Whole-of-Government Approach to National Suicide Prevention Strategies. *Crisis*, 44(2), 85-92. <https://doi.org/10.1027/0227-5910/a000902>
- Platt, S., Arensman, E., & Rezaeian, M. (2019). National Suicide Prevention Strategies – Progress and Challenges. *Crisis*, 40(2), 75-82. <https://doi.org/10.1027/0227-5910/a000587>
- Schlichthorst, M., Reifels, L., Spittal, M., Clapperton, A., Scurrah, K., Kolves, K., Platt, S., Pirkis, J., & Krysinska, K. (2023). Evaluating the Effectiveness of Components of National Suicide Prevention Strategies. *Crisis*, 44(4), 318-328. <https://doi.org/10.1027/0227-5910/a000887>
- Sinyor, M., Ming Chan, P. P., Niederkrotenthaler, T., Scott, V., & Platt, S. (2024). The Development, Progress, and Impact of National Suicide Prevention Strategies Worldwide. *Crisis*, 45(4), 301-307. <https://doi.org/10.1027/0227-5910/a000948>
- Vazquez, A., Arenas Landgrave, P., Tejadilla Orozco, D. I., & Espinosa Méndez, P. (2024). Estructura del Programa Nacional para la Prevención del Suicidio en México. *Acta Pediátrica de México*, 45(1S), S89-S99. <https://doi.org/10.18233/apm.v45i1s.2756>
- Witt, K. G., Hawton, K., Hetrick, S. E., Taylor Salisbury, T. L., Townsend, E., & Hazell, P. (2020). Interventions for self-harm in children and adolescents. *Cochrane Database of Systematic Reviews*, <https://doi.org/10.1002/14651858.cd013667>
- World Health Organization [WHO]. (2025). *Suicide worldwide in 2021: Global health estimates*. <https://www.who.int/publications/i/item/9789240110069>