



Evaluation of the Risk of Suicide Among People Exposed to Domestic Violence

Karla Indira Hurtado Serrano¹, Israel Darío Carrillo Quisnia²

^{1,2}Universidad Regional Autónoma de Los Andes Ambato, Ecuador.

Email: ua.karlahs43@uniandes.edu.ec¹, ua.israelcq21@uniandes.edu.ec²

ORCID ID: 0000-0003-0776-2019¹, 0000-0002-5802-3059²

*Corresponding author's E-mail: ua.karlahs43@uniandes.edu.ec

Article History	Abstract
Received: 06 June 2023 Revised: 05 Sept 2023 Accepted: 11 Sept 2023	<p><i>One of the most significant risk factors for suicidal behaviour in women is domestic violence. This problem not only entails devastating human consequences, but also an economic impact due to the loss of population in productive ages. The methods used to carry out suicidal acts include suffocation, the use of firearms and poisoning, prevention strategies that seek to restrict access to these lethal means being essential. In the context of Ecuador, mortality from suicide in adolescents has reached up to 27%, which highlights the urgent need to address this problem with preventive actions aimed especially at this group of the population. Also, studies indicate that men have a higher risk of committing suicide compared to women, although the latter tend to make more suicide attempts. These disparities are influenced by various factors, such as social, cultural and socioeconomic aspects, which affect the manifestation of mental health. Suicide is a complex public health issue with serious repercussions both at the individual and social levels, which is why it is imperative to implement comprehensive and effective strategies for the prevention and proper management of this problem.</i></p>
CC License CC-BY-NC-SA 4.0	Keywords: Suicidal behaviour's, public health, Domestic violence, Adolescents, Women.

1. Introduction

Suicide, defined as the intentional act of inflicting harm on oneself with the aim of causing one's own death, is presented as an unfortunate global reality that demands urgent attention. Every year, around 800,000 people lose their lives due to this tragedy, even though it is considered preventable⁽¹⁾. This devastating figure places suicide among the leading causes of mortality worldwide. In fact, in 2016, it stood out as the second cause of death within the age group between 15 and 29 years, although it is relevant to highlight that it can affect people of all ages⁽¹⁾.

The magnitude of the problem is evident when we observe that more than 79% of suicide cases are concentrated in low- and middle-income countries, although this phenomenon knows no borders and affects all regions of the world⁽²⁾. The universality of this challenge calls on the international community to act jointly and in a coordinated manner to implement preventive strategies and effective actions.

Against this background, it is imperative to establish solid preventive measures backed by scientific evidence, aimed at addressing this complex public health problem. Early identification of risk factors and promotion of mental health are crucial aspects of preventing suicide and safeguarding the lives of those at risk. It is critical to recognize that suicide affects not only the individuals who carry it out, but also has a devastating impact on their families, friends, and communities. The emotional and psychological toll it leaves behind can be heartbreaking and lasting.

Risk factors:

Age: In teens and young adults ages 15 to 29, death by suicide reaches the highest absolute numbers. Death statistics in the United States do not include death by suicide up to age 10. However, in the 10-14 age group, suicide is the third most common cause of death, representing the second most common cause up to the age of 34 and beyond. Similarly, according to the WHO, children and adolescents up to the age of 15 exhibit the lowest rates of global suicide (per 100,000 inhabitants), which rise steadily thereafter until the age of 70 or older⁽³⁾⁽⁴⁾⁽⁵⁾.

Gender: The overall suicide rate of 10.7 per 100,000 population encompasses a male-to-female ratio of 1.7. Therefore, men commit suicide almost twice as often as women. However, when comparing information from 183 countries that was assigned in 2015, the male: female ratio ranged from 0.8 in Bangladesh and China to 12.2 in St. Vincent and the Grenadines. A ratio of less than one means that women's suicide rate exceeds that of men; this only exists in China and Bangladesh. In total, the absolute numbers of suicide are not comparable between men and women, but the age distributions follow the pattern of the respective country. Contrasting low- and middle-income countries with high-income countries results in higher suicide rates for both young women and young men in low- and middle-income countries compared to high-income countries⁽⁶⁾⁽⁷⁾.

Socioeconomic factors: Socioeconomic variables strongly influence suicide rates mediated by being co-determinants of risk and, of course, mental disorders. Several socioeconomic risk factors have been defined, such as demographic parameters, including age, gender, ethnicity and parameters related to social status: low income, income inequality, unemployment, low education and low social support. Social change: in a social domain, for example, urbanization, or individually, for example, change in income. Neighbourhood: inadequate housing, overcrowding, violence and others. Environmental impacts: climate change, natural disaster, war, conflict and migration. Here are many reasons for the high number of suicides in low- and middle-income countries^(8,9,10).

Vulnerable social groups: Certain groups deserve special mention because they are at even greater risk of suicide: police, firefighters, and other frontline first responders, as well as individuals in the military, incarcerated people, or those in high-security hospitals, who have rates in men 7 times and in women 40 times higher than overall rates, minorities, homeless people, refugees and asylum seekers^(11, 12).

However, divergent results emerge from the literature on migrants: the risk of suicide is said to increase, remain stable or decrease with migration, which may be related, among others, to the socioeconomic situation in the country of settlement. Several authors claim that ethnicity, country of origin and country of settlement influence the risk of suicide, especially since cultural differences between countries can cause intergenerational and intrapsychic conflicts. In addition, lesbian, gay, transgender and bisexual people are said to be at elevated risk of suicide. Suicide attempts among transgender people reach 30-50% in some countries⁽¹³⁾⁽¹⁴⁾.

Attitudes, values and beliefs strongly influence a possible decision to end life. As Islam forbids suicide, reported numbers from Muslim backgrounds are low. When Hinduism or Christianity are present, suicide rates circulate around 10:100,000 (e.g., Italy 11.2, India 9.6). Several authors highlighted culture in a broader sense and its impact on suicidal behaviour, suicides, and prevention. In addition, suicide rates are related to geography (e.g., amount of daylight), with the presence of examples in the social context, i.e., the "Werther effect" or copy suicide, man-made factors such as suicide legislation; For example, suicidal behaviour is illegal in several countries, domestic violence and forced marriage^(15, 16, 17).

2. Materials And Methods

This research was based on a thematic literature review that addressed the relationship between suicide and domestic violence. To ensure the obtaining of a wide and updated range of academic research, consultations were made in recognized databases such as Dialnet, PubMed, SciELO and ScienceDirect, which offer a multidisciplinary perspective. Likewise, the information was complemented through the use of the academic search engine Google Scholar. Since access to certain

resources may be limited by economic reasons, priority was given to consulting works available free of charge, as far as possible.

In this search, inclusion criteria were applied with the aim of selecting relevant and relevant documents for the research, including:

- Documents available online and in both English and Spanish languages, thus guaranteeing a wide scope of information.
- Articles published in the last five years, with special attention to publications in indexed journals, to obtain updated data supported by the scientific community.
- Case reports and articles that specifically address suicide risk in victims of domestic violence, to obtain focused and detailed information on the topic of interest.

Search terms were carefully defined as keywords or descriptions of the research topic, such as domestic violence, gender, suicide and suicide risk. These terms were instrumental in filtering and obtaining the most relevant and accurate information for the study.

The selection and analysis of the literature was carried out in several stages, starting with the reading of titles and abstracts to identify those works that fit the inclusion criteria. Subsequently, a pre-selection of the most pertinent documents was made and finally, an exhaustive reading of all the literature selected for the study was carried out.

The results obtained through this rigorous literature review will be fundamental to develop a detailed and well-founded analysis of the relationship between suicide and domestic violence, providing a solid basis for generating recommendations and strategies in the field of prevention and addressing this public health problem.

3. Results and Discussion

Exposure to violence can cause immediate physical injuries that can be recognized and treated by healthcare workers, but they can also lead to lasting mental and physical health conditions that are often less apparent to healthcare providers. Violence directly affects health care expenditures. Indirectly, it slows economic development, increases inequality and erodes human capital. The World Health Organization defines interpersonal violence as the intentional use of physical force or power, threatened or actual, against another person or against a group or community that results in or has a high probability of causing injury, death, psychological harm, maldevelopment, or deprivation ⁽¹⁸⁻²⁷⁾.

There are studies in which it is reported that men have a higher risk of committing suicide compared to women, but instead women commit more suicide attempts (a phenomenon known as the suicide paradox), related by different factors such as social, cultural and socioeconomic ⁽¹⁹⁻²⁸⁾.

The most important risk factor for suicidal behaviours in women is domestic violence. Young Hindus consider violence to be the most important cause of suicide ⁽²⁰⁾

According to the Pan American Health Organization/World Health Organization (PAHO/WHO), in the period 2005-2009, in Latin America and the Caribbean, suicide rates in men was 8.4 and in women 2.1 per 100,000 inhabitants, in all studies men have a higher percentage of suicide ⁽²¹⁾.

In the field of Legal Medicine, suicide is the main cause of violent death. According to mortality statistics, hanging, strangulation or suffocation were the most used methods in deaths by suicide in Spain, followed by rainfall and poisoning. ⁽²²⁻²⁹⁾

One of the consequences of prolonged exposure to manifestations of domestic violence, which increases the risk of suicide, is part of a constellation of behaviours and ideas that make up suicidal behaviour. In Ecuador, suicide is the second leading cause of death in adolescents and young adults.

Among the methods used to commit suicide are asphyxiation (39.7%), firearms (33.3%) and poisoning (18.2%). North America had the highest proportion of self-inflicted firearm deaths (47.2%). In Central America, the Hispanic Caribbean and Mexico (64.3%) and in South America (58.2%) the highest frequency of suicides was due to asphyxiation. In the non-Hispanic Caribbean, the most common method was poisoning (47.3%) ⁽²¹⁾.

In Ecuador, between 2001 and 2014, there were 4855 deaths by suicide of adolescents and young people, 2738 of adolescents (10-19 years) and 4 144 of young people (15–24 years). Most of the deceased were males between 15 and 24 years of age. Regarding the method of suicide, the differences by sex were remarkable: in women, poisoning was the most frequent method (54%), followed by hanging (41%), and in men the most frequent were hangings (66%), followed by poisoning with pesticides (25%) and shooting (5%).⁽¹⁹⁻³⁰⁾

Between the two periods (2001-2007 and 2008-2014), suicide of young people and adolescents in Ecuador increased from 11 to 27%, suicide mortality rates varied markedly by provinces and by age groups, but the general trend shows an increase in such rates in Ecuadorian youth and adolescents⁽¹⁹⁾

Typically, adolescents are confronted with the emergence of autonomy, the rejection of parental authority, increased social and academic responsibilities, and a desire to be intimate with others. Likewise, this period of transition represents a time of exploration of identity where frequent changes are experienced in life goals, romantic ties, aspirations for work or study and in the vision of the world, domestic violence has been associated with suicidal behaviors in women victims of this situation. These events may make it easier for some adolescents to develop depressive symptoms or suicidal behaviors due to the inability to cope with biological and psychosocial changes that occur during this crucial period of development.⁽²³⁾

Women who have been victims of domestic violence experience significant repercussions on their mental health. This group of women, affected by physical violence, faces a higher risk of emotional distress, and those who have been subjected to verbal or physical aggression have a higher probability of developing depression. There is an interdependence between domestic violence and depression, since depressed women can get involved in violent relationships, and in turn, women victims of violence can experience depression as a result of the trauma experienced⁽²⁰⁾.

The consequences of these problems are devastating both for people who carry out suicidal acts and for their families, in addition to generating a significant burden for the State in terms of physical injuries, emotional and mental trauma, hospitalizations and the economic resources necessary for the integral recovery of those affected. Suicide also impacts the economy due to the loss of population in productive ages. Suicide attempt is considered a diagnostic criterion for borderline personality disorder, and in individuals with this disorder a worrying prevalence of self-injurious behaviors (60% to 80%) and completed suicides (10%) has been observed in people under 30 years of age⁽²⁴⁾.

In the context of suicide risk, it is defined as the probability that an individual will cause themselves injury or harm, regardless of the degree of lethal intent or knowledge of the true motive. Suicidal ideation, on the other hand, encompasses thoughts about the cessation of one's life, including suicidal thoughts or desires. Suicide attempts include attempts or self-injurious acts with the intention of dying, while completed suicide represents the successful outcome of the attempt to take one's own life⁽²⁵⁾.

Despite notable advances in Ecuadorian society regarding women's rights and women's empowerment, domestic violence remains a pending challenge for the authorities and society at large. Data published by the National Institute of Statistics and Censuses (INEC) reveal that 6 out of 10 women have been victims of domestic violence at some point in their lives, regardless of their age, socioeconomic status or educational level⁽²⁶⁾.

Given the seriousness of this problem, it is imperative that effective policies and programs continue to be implemented to prevent and address domestic violence, providing a safe and supportive environment for affected women. It is also crucial to strengthen mental health care and treatment for those who have been victims of violence, especially with regard to suicide risk, to provide them with the support and help necessary to overcome the emotional aftermath and prevent future tragedies.

4. Conclusion

Suicide is a worrisome problem affecting the youth population in Ecuador, which has been identified as the second leading cause of death in this demographic group. Throughout the academic literature, a consensus has been reached that woman, in general, face a higher incidence of suicidal ideation and risk compared to men.

In the specific context of domestic violence, it has been the subject of careful analysis in national academic research, especially from the psychological perspective. Studies have yielded worrying results, showing that women who are victims of domestic violence have a high incidence of depressive disorders accompanied by suicidal ideation. This close relationship between domestic violence and suicide risk in women highlights the urgent need to understand and address this complex problem from an interdisciplinary perspective.

However, it is important to note that the approach of forensic psychiatry has addressed this issue in a limited way, possibly due to its preventive nature and the lack of specific studies in this area. This lack of research in the forensic field calls us to reflect and prompts us to promote more thorough investigations that analyse the intersection between domestic violence and suicide risk in the legal and forensic context.

In conclusion, the issue of suicide in Ecuadorian youth and its link with domestic violence, especially in the case of women, requires an in-depth and multidisciplinary analysis from various academic perspectives. This public health issue demands a comprehensive approach and robust preventive and therapeutic actions to protect the lives and emotional well-being of those affected. It is essential that the academic community and health professionals join forces to find effective solutions and promote mental well-being in society.

References:

1. World Health Organization. (2014). Suicide prevention: A global imperative. Pan American Health Organization.
2. Alfonso, C. (2015). Suicide attempt. *WHO Bibliographic Bulletin*. <https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/IA/INS/protocolo-vigilancia-intento-suicidio.pdf>
3. Värnik, P. (2012). Suicide in the world. *International Journal of Environmental Research and Public Health*, 9(3), 760-771.
4. National Center for Injury Prevention and Control Using WISQARS™. (2016). 10 Leading Causes of Death by Age Group, United States.
5. Mars, B., Burrows, S., Hjelmeland, H., & Gunnell, D. (2014). Suicidal behavior across the African continent: A review of the literature. *BMC Public Health*, 14, 445.
6. Jordans, M. J. D., Kaufman, A., Brenman, N. F., Adhikari, R. P., Luitel, N. P., Tol, W. A., et al. (2014). Suicide in South Asia: A scoping review. *BMC Psychiatry*, 14(1).
7. World Health Organization. (2016). Age-standardized suicide rates: Male: female ratio (per 100,000).
8. Patel, V., Chisholm, D., Parikh, R., Charlson, F. J., Degenhardt, L., Dua, T., et al. (2016). Global priorities for addressing the burden of mental, neurological, and substance use disorders. In: *Disease Control Priorities, Third Edition (Volume 4): Mental, Neurological, and Substance Use Disorders*. The World Bank, 1-27.
9. Bantjes, J., Iemmi, V., Coast, E., Channer, K., Leone, T., McDaid, D., et al. (2016). Poverty and suicide research in low- and middle-income countries: Systematic mapping of literature published in English and a proposed research agenda. *Global Mental Health*, 3.
10. Knipe, D. W., Gunnell, D., Pieris, R., Priyadarshana, C., Weerasinghe, M., Pearson, M., et al. (2017). Is socioeconomic position associated with risk of attempted suicide in rural Sri Lanka? A cross-sectional study of 165,000 individuals. *BMJ Open*, 7(3).
11. Milner, A., Witt, K., Maheen, H., & Lamontagne, A. D. (2017). Suicide among emergency and protective service workers: A retrospective mortality study in Australia, 2001 to 2012. *Work*, 57(2), 281-287.
12. Jones, R. M., Hales, H., Butwell, M., Ferriter, M., & Taylor, P. J. (2011). Suicide in high-security hospital patients. *Social Psychiatry and Psychiatric Epidemiology*, 46(8), 723-731.
13. Virupaksha, H. G., Muralidhar, D., & Ramakrishna, J. (2016). Suicide and suicidal behavior among transgender persons. *Indian Journal of Psychological Medicine*, 38, 505-509.
14. Osafo, J., Hjelmeland, H., Akotia, C. S., & Knizek, B. L. (2011). Social injury: An interpretative phenomenological analysis of the attitudes towards suicide of lay persons in Ghana. *International Journal of Qualitative Studies on Health and Well-being*, 6(4).
15. Sisask, M., & Värnik, A. (2012). Media roles in suicide prevention: A systematic review. *International Journal of Environmental Research and Public Health*, 9(1), 123-138.
16. Lutter, M., Roex, K. L. A., & Tisch, D. (2020). Anomie or imitation? The Werther effect of celebrity suicides on suicide rates in 34 OECD countries, 1960–2014. *Social Science & Medicine*, 246.

17. Vijayakumar, L., Phillips, M. R., Silverman, M. M., Gunnell, D., & Carli, V. (2016). Suicide. In: *Disease Control Priorities, Third Edition (Volume 4): Mental, Neurological, and Substance Use Disorders*. The World Bank, 163-181.
18. Krug, E. G., Mercy, J. A., Dahlberg, L. L., & Zwi, A. B. (2002). The world report on violence and health. *Lancet*, 360(9339), 1083-1088.
19. Gerstner, R. M. F., Soriano, I., Sanhueza, A., Caffè, S., & Kestel, D. (2018). Epidemiology of suicide in adolescents and young people in Ecuador. *Pan American Journal of Public Health*.
20. Morfín López, T., & Miguel Sánchez-Loyo, L. (2015). Domestic violence and suicidal behavior: Women's accounts of violence and its effects. *Suicidal Behavior*, 25(2), 6.
21. World Health Organization. (2016). *Prevention of suicidal behavior*. Washington, D.C.
22. Robledo Acinas, M. del M., López Cerón, A., Koutsourais, I., Serrano, M., Villareal, J., & Martín, D. (2015). Medico-legal study of suicide in Spain in the period 2000-2012. *Law and Social Change*.
23. Vargas, H. B., & Saavedra, J. E. (2012). Factors associated with suicidal behavior in adolescents. *Factors Associated with Suicidal Behavior in Adolescents*.
24. Yohanna Bedoya Cardona, E., & Ludivia Esther Montaña Villalba, O. (n.d.). PSYCHOLOGY Suicide and Mental Disorder. *Suicide and Mental Disorder Rev CES Psicol*, 9(2), 179-201.
25. Serrano Ruiz, C. P., & Olave Chaves, J. A. (2017). Risk factors associated with the onset of suicidal behaviors in adolescents. *MedUNAB*, 20(2), 139-147.
26. National Institute of Statistics and Censuses. (2016). First national survey of family relations and gender-based violence against women.
27. RG Rooms, of the MMV River. (2021). Bovine mastitis and milk quality, a challenge for human health. *University and Society*, 13(S1), 89-96.
28. Martínez, R. M. (2021). Cultural factors and women's gender subordination and their relationship with maternal mortality in the community of Guanujo, Guaranda, Ecuador. *University and Society*, 13(S1), 97-102.
29. Rodríguez, I. X. L., Navarrete, W. R. P., & Torres, L. D. T. (2021). Analysis of the elements that affect the abandonment of the elderly in Santo Domingo. *University and Society*, 13(S1), 103-113.
30. Rodríguez, I. X. L., Torres, Y. L. V., & Jiménez, L. T. (2021). Analysis of the abandonment of causes and their legal effects, from the perspective of comparative law, with the use of diffuse cognitive maps. *University and Society*, 13(S1), 114-124.