IMPACTO CIENTÍFICO EDITORA

BETWEEN CHANCE AND INTENTION: ROAD TRAFFIC AS AN INVISIBLE SPACE OF SUICIDE

ENTRE O ACASO E A INTENÇÃO: O TRÂNSITO COMO ESPAÇO INVISÍVEL DO SUICÍDIO

ENTRE EL AZAR Y LA INTENCIÓN: EL TRÁNSITO COMO ESPACIO INVISIBLE DEL SUICIDIO

https://doi.org/10.56238/edimpacto2025.089-009

Paulo Henrique Duarte Palácio[1], Francisco Williams Cabral Filho[2], Eudemberg Pinheiro da Silva[3], Aaron Macena da Silva[4], Jennyfer Lara Pinheiro da Silva Braga[5], Larissa Rakel Rodrigues de Souza[6], Shírley Moura Pereira[7], Maria Clara de Matos Uchoa[8], Daniel Leite Machado[9], Rayane Ferreira Duarte[10], Raimunda Hermelinda Maia Macena[11]

ABSTRACT

Traffic accidents are among the leading causes of preventable death worldwide and are traditionally interpreted as unintentional events resulting from human error, environmental conditions, or infrastructure deficiencies. However, scientific evidence indicates that a proportion of these deaths may correspond to intentional or semi-intentional suicidal behaviors, which are frequently rendered invisible and recorded as accidents of undetermined cause. This study aims to critically analyze the scientific evidence on the phenomenon of hidden suicide in the context of traffic, examining the relationship between suicidal ideation, risky driving behaviors, limitations in death classification systems, and implications for road safety. This is an integrative narrative review of the literature, qualitative and analytical-interpretative in nature, based on classic and contemporary studies published in national and international databases. The findings indicate recurring patterns associated with intentionality, such as single-vehicle collisions, high speed, absence of evasive maneuvers, and the selection of highly lethal scenarios, as well as a consistent association

[1] Doctoral student in Public Health. Universidade Federal do Ceará. E-mail: ph@unifor.br
[2] Graduated in Laws. Departamento Nacional de Infraestrutura de Transportes. Ceará, Brazil. E-mail: francisco.filho@dnit.gov.br
[3] Master of Science in Civil Engineering. Departamento Nacional de Infraestrutura de Transportes. Ceará, Brazil. E-mail: eudemberg.silva@dnit.gov.br
[4] Master's Student In Public Health. Universidade Federal do Ceará. E-mail: tazrapofficial@gmail.com
[5] Undergraduate Student In Psychology. Centro Universitário Sete de Setembro. E-mail: jennyferpsbraga.@gmail.com
[6] Graduated In Human Resources Management. Departamento Nacional de Infraestrutura de Transportes. Ceará, Brazil. E-mail: larissa.souza@assessorce.com.br
[7] Graduated In Pedagogy. Departamento Nacional de Infraestrutura de Transportes. Ceará, Brazil. E-mail: shirley.pereira@assessorce.com.br
[8] Graduating In Law. Departamento Nacional de Infraestrutura de Transportes. Ceará, Brazil. E-mail: maria.m.uchoa@dnit.gov.br
[9] Graduated In Chemical Engineering. Departamento Nacional de Infraestrutura de Transportes. Ceará, Brazil. E-mail: daniel.leite@dnit.gov.br
[10] Undergraduate Student In Law. Graduated In Pedagogy. UNINTA. Departamento Nacional de Infraestrutura de Transportes. Ceará, Brazil. E-mail: rayane.duarte@dnit.gov.br
[11] Postdoctorate certificate In Public Health. Universidade Federal do Ceará. E-mail: lindamacecna@gmail.com

between suicidal ideation and risky driving behaviors. It is concluded that the statistical invisibility of suicide in traffic compromises epidemiological surveillance and limits preventive strategies, reinforcing the need for intersectoral approaches that integrate road safety, mental health, and public policies aimed at preventing avoidable deaths.

Keywords: Hidden Suicide. Road Safety. Traffic Accidents. Suicidal Ideation. Public Health. Epidemiological Surveillance.

RESUMO

Os acidentes de trânsito figuram entre as principais causas de morte evitável no mundo e são tradicionalmente interpretados como eventos não intencionais, decorrentes de falhas humanas, condições ambientais ou problemas de infraestrutura. Entretanto, evidências científicas indicam que uma parcela dessas mortes pode corresponder a comportamentos suicidas intencionais ou semi-intencionais, frequentemente invisibilizados e registrados como acidentes de causa indeterminada. Este estudo tem como objetivo analisar criticamente as evidências científicas sobre o fenômeno do suicídio oculto no contexto do trânsito, examinando a relação entre ideação suicida, comportamentos de direção de risco, limitações nos sistemas de classificação de óbitos e implicações para a segurança viária. Trata-se de uma revisão narrativa integrativa da literatura, de natureza qualitativa e analítico-interpretativa, baseada em estudos clássicos e contemporâneos publicados em bases nacionais e internacionais. Os achados indicam padrões recorrentes associados à intencionalidade, como colisões de veículo único, alta velocidade, ausência de manobras evasivas e escolha de cenários de elevada letalidade, além de associação consistente entre ideação suicida e comportamentos de direção de risco. Conclui-se que a invisibilidade estatística do suicídio no trânsito compromete a vigilância epidemiológica e limita estratégias preventivas, reforçando a necessidade de abordagens intersetoriais que integrem segurança viária, saúde mental e políticas públicas orientadas à prevenção de mortes evitáveis.

Palavras-chave: Suicídio Oculto. Segurança Viária. Acidentes de Trânsito. Ideação Suicida. Saúde Pública. Vigilância Epidemiológica.

RESUMEN

Los accidentes de tránsito se encuentran entre las principales causas de muerte evitable en el mundo y tradicionalmente se interpretan como eventos no intencionales, derivados de fallas humanas, condiciones ambientales o deficiencias de la infraestructura. Sin embargo, evidencias científicas indican que una proporción de estas muertes puede corresponder a comportamientos suicidas intencionales o semiintencionales, frecuentemente invisibilizados y registrados como accidentes de causa indeterminada. Este estudio tiene como objetivo analizar críticamente las evidencias científicas sobre el fenómeno del suicidio oculto en el contexto del tránsito, examinando la relación entre la ideación suicida, los comportamientos de conducción de riesgo, las limitaciones en los sistemas de clasificación de defunciones y las implicaciones para la seguridad vial. Se trata de una revisión narrativa integrativa de la literatura, de naturaleza cualitativa y analítico-interpretativa, basada en estudios clásicos y contemporáneos publicados en bases de datos nacionales e internacionales. Los hallazgos indican patrones recurrentes asociados a la intencionalidad, como colisiones de un solo vehículo, alta velocidad, ausencia de maniobras evasivas y elección de escenarios de elevada letalidad, además de una asociación consistente entre la ideación suicida y los comportamientos de conducción de riesgo. Se concluye que la invisibilidad estadística del

suicidio en el tránsito compromete la vigilancia epidemiológica y limita las estrategias preventivas, reforzando la necesidad de enfoques intersectoriales que integren la seguridad vial, la salud mental y políticas públicas orientadas a la prevención de muertes evitables.

Palabras clave: Suicidio Oculto. Seguridad Vial. Accidentes de Tránsito. Ideación Suicida. Salud Pública. Vigilancia Epidemiológica.

1 INTRODUCTION

Road crashes remain among the leading causes of preventable death worldwide, traditionally interpreted as unintentional events resulting from human error, harsh environmental conditions, or mechanical problems. This framework, although fundamental for the advancement of road safety, has limited the understanding of a less visible but relevant phenomenon: the possibility that a portion of these deaths represent, in reality, intentional or semi-intentional suicidal acts camouflaged under the appearance of accidents (SELZER; PAYNE, 1962; SHNEIDMAN, 1973).

Since the mid-twentieth century, clinical and forensic studies have been warning about the use of the vehicle as a means of suicide, especially in single-vehicle collisions, deliberate frontal collisions, and events characterized by high speed and the absence of evasive maneuvers (SELZER; PAYNE, 1962). Shneidman (1973) introduced the concept of *vehicular suicidal ideation*, suggesting that the automobile can function as a psychologically acceptable and socially less stigmatized instrument of death, contributing to the statistical invisibility of these events. Despite these pioneering contributions, the theme remained marginal in public policies and road surveillance systems.

Contemporary evidence reinforces the pertinence of this debate. Population studies have shown a consistent association between suicidal ideation and risky driving behaviors, including speeding, driving under the influence of substances, and lower adherence to safety devices (THOMPSON et al., 2011). Such findings suggest that certain patterns of risk in traffic cannot be understood exclusively as recklessness or human error, but as indirect manifestations of psychological suffering.

In addition, clinical investigations indicate that survivors of traffic accidents with physical sequelae have high prevalences of suicidal ideation in the post-event period, pointing to a bidirectional relationship between road trauma and mental vulnerability (KASHANI et al., 2001). This interaction reinforces the need to integrate mental health into the field of road safety, overcoming fragmented approaches that treat accidents and suicide as independent phenomena.

Another challenge lies in the official classification of deaths. Recent studies show that improvements in investigation and registration protocols can substantially alter the proportion of deaths classified as accidents or suicides, evidencing systematic underreporting of intentionality in road settings (RUNESON et al., 2025). The absence of witnesses, the

destruction of physical evidence, and the presumption of accidentality favor the concealment of suicide, compromising epidemiological analyses and the planning of preventive strategies.

Given this scenario, it is necessary to rethink road safety from a broader public health perspective, incorporating the concept of hidden suicide into the technical and political debate. Acknowledging that part of traffic deaths may result from psychological distress does not imply denying the importance of preventing unintentional accidents, but rather strengthening integrated strategies that consider psychological, social and environmental factors. By articulating traffic, mental health, and epidemiological surveillance, the way is paved for more effective interventions and for the reduction of deaths that, until then, remain invisible in official statistics.

Thus, this study aims to critically analyze the scientific evidence that indicates the existence of hidden suicides in the context of traffic accidents, examining the relationship between suicidal ideation, risky driving behaviors, limitations of death classification systems and road safety strategies, with a view to subsidizing integrated prevention approaches that articulate traffic, mental health and epidemiological surveillance.

2 METHODS

This is a qualitative, descriptive and analytical-interpretative study, developed from an integrative narrative review of the literature, focusing on the interface between road safety, suicidal behavior and classification of deaths due to traffic accidents. The choice of integrative narrative review is justified by the complexity of the phenomenon investigated, which involves clinical, forensic, epidemiological and institutional dimensions, as well as by the methodological heterogeneity of the available studies.

The bibliographic search was carried out in national and international databases recognized in the area of public health and safety, including PubMed/MEDLINE, ScienceDirect, SpringerLink, PLOS ONE, CDC/MMWR, as well as portals of scientific journals and institutional repositories. Controlled descriptors and keywords in English were used, combined by Boolean operators: *suicide*, *vehicular suicide*, *road traffic accidents*, *intentional crash*, *risky driving*, *suicide concealment*, *classification of deaths*, *railway suicide* and *public infrastructure*.

The search strategy prioritized published studies without initial date restriction, in order to include both classic studies that founded the concept of vehicular suicide and

contemporary evidence related to road safety and epidemiological surveillance. The last update of the search took place in December 2025.

Studies that met the following criteria were included: (a) explicitly addressed suicide in the context of road or rail traffic, including vehicular collisions, risky driving associated with suicidal ideation, or difficulties in classifying between accident and suicide; (b) present empirical data, forensic and epidemiological analyses or systematic reviews relevant to the theme; (c) were available in English or Portuguese, with access to the full abstract and metadata.

Studies exclusively focused on unintentional accidents without any mention of intentionality, psychological distress or suicidal behavior were excluded, as well as publications of an opinionated nature without empirical basis.

After the initial identification of the records, the titles and abstracts were read to assess eligibility. Then, the selected studies had their abstracts and, when available, full texts analyzed in depth. The final empirical corpus was composed of 17 studies, including classic articles, observational studies, population analyses, institutional reports, and recent research on the classification of deaths in road contexts.

The analysis of the studies was conducted through qualitative thematic analysis, guided by analytical categories defined a priori and refined during the reading: (i) evidence of intentionality in traffic accidents; (ii) relationship between suicidal ideation and risky driving behaviors; (iii) limits and biases of death classification systems; (iv) concept of hidden suicide; (v) implications for road safety and public prevention policies. From these categories, a comparative conceptual framework between unintentional accident and occult suicide was elaborated, used as an analytical instrument to integrate the findings and discuss their implications.

As this was a study based exclusively on secondary sources in the public domain, without direct involvement of human beings or access to individualized data, it was not necessary to submit to a research ethics committee.

The limitations of this study are the dependence on secondary data, the methodological heterogeneity of the included studies, and the restricted access to some full texts; Even so, the triangulation between classical, empirical, and institutional evidence reinforces the analytical consistency of the findings.

3 RESULTS

Most studies (64%) are observational or reviews with a strong predominance of high-income countries. The integrative analysis of the 17 included studies revealed a consistent body of evidence supporting the existence of hidden suicides in the context of traffic accidents, as well as important limitations in death classification systems and gaps in road safety policies. The results were organized into five main analytical axes.

The first axis refers to evidence of intentionality in vehicular collisions. Classic and contemporary studies have identified recurrent patterns associated with possible suicidal acts, such as single-vehicle collisions, high-speed frontal impacts, absence of braking marks, and choice of highly lethal scenarios (SELZER; PAYNE, 1962; SHNEIDMAN, 1973). Classical studies such as Selzer & Payne (1962) and Shneidman (1973) established initial criteria for recognizing intentional collisions, highlighting psychosocial factors that differentiate accidents from deliberate suicide. Population-based cross-sectional research (e.g., Thompson et al. 2011) documents that suicidal ideation correlates with risky driving behaviors in adolescents, implying that mental health interventions can reduce road accidents associated with psychological distress. Clinical reports (e.g., Kashani et al. 2001) show that survivors of accidents with sequelae have a higher prevalence of subsequent suicidal ideation, indicating the need for integrated follow-up. Research on antidepressant use and risk of injury in accidents (e.g., Bramness et al. 2008) suggests a complex relationship that requires close clinical monitoring. These characteristics differentiate such events from random accidents and indicate that part of traffic deaths may involve deliberate or ambivalent intent.

The second axis evidenced the association between suicidal ideation and risky driving behaviors. Observational research and population studies have shown that individuals with suicidal ideation are more likely to drive at excessive speeds, under the influence of alcohol or other substances, without wearing a seat belt, and with a lower perception of risk (THOMPSON et al., 2011; BRAMNESS et al., 2008). Traditionally, road safety focuses on unintentional collisions (by error, speeding, human/vehicular errors), but epidemiological and forensic evidence shows that a non-negligible number of traffic accidents and lane invasions may be related to suicidal intent (OHBERG et al., 2012; SELZER; PAYNE, 1962; SHNEIDMAN, 1973). Classic studies such as Selzer & Payne (1962) and Shneidman (1973) identify collisions as a suicidal method, requiring specific criteria for forensic investigation to distinguish accidents from suicide attempts/intent.

Population studies also show a relationship between suicidal ideation and risky driving behavior (THOMPSON et al., 2011), suggesting that individuals with emotional distress may adopt dangerous, potentially deliberate driving. In addition, factors such as post-accident physical disabilities are associated with increases in suicidal ideation and risk of death from other causes (KASHANI et al., 2001). Other studies explore the association between antidepressant medication, ideation and risk of accidents (BRAMNESS et al., 2008), reinforcing the need for an integrated approach between mental health and road safety. These behaviors substantially increase the probability of serious and fatal collisions, reinforcing the hypothesis that road risk can function as an indirect expression of psychological distress.

The third axis addressed the limits and biases in the official classification of traffic deaths. Studies that analyzed surveillance systems and forensic records have shown that improvements in investigation protocols significantly alter the proportion of deaths classified as suicide or accident, suggesting underreporting of intentionality in official records (RUNESON et al., 2025). Classification studies, including recent work on railways (Runeson et al. 2025), demonstrate that improving registration systems can alter the observed prevalence of suicides vs. accidents by strengthening epidemiological surveillance. The absence of witnesses, the destruction of physical evidence on impact, and the presumption of accident were identified as central factors for the concealment of suicide in epidemiological data.

The table below shows that traffic accidents and hidden suicides share similar external manifestations, but differ substantially in intentionality, motivation, and preventive implications. The absence of explicit signs — such as notes or prior verbalization — favors automatic classification as an accident, perpetuating the invisibility of suicide by vehicular collision. From a conceptual point of view, hidden suicide occupies a gray area between risky behavior and fully declared suicidal acts, requiring preventive approaches that transcend the classic model of road safety. Recognizing this distinction does not imply criminalizing or pathologizing traffic, but rather integrating psychic suffering into models of analysis, surveillance, and intervention.

Figure 1

Analytical Dimension between Traffic Accident (Unintentional) and Hidden Suicide by Vehicular Collision

Analytical Dimension	Traffic Accident (Unintentional)	Hidden Suicide by Vehicular Collision
Intentionality	Absent or not deliberate; Fortuitous event	Present, total or partial; direct or ambivalent intent
Underlying motivation	Human error, mechanical failure, environmental conditions	Psychological distress, suicidal ideation, acute crisis
Planning	Non-existent	It can be implied, brief, or unspoken
Collision type	Multivehicular or casual	Often single vehicle or deliberate frontal collision
Pre-event behavior	Habitual or distracted driving	Risky driving, excessive speed, no braking
Mental health history	Not necessarily present	Common: depression, suicidal ideation, substance use
Substance use	Possible contributory factor	It can be used as a facilitator of the act
Lethality of the method	Variable	High and predictable
Ambivalence	Not applicable	Frequent (hesitation, indirect acts)
Presence of ticket or notice	Absent	Usually absent (contributes to concealment)
Witnesses	Possible	Usually absent
Physical evidence	Accident-compatible	They can mimic accidents, making inferences difficult
Official death classification	Accident	Usually recorded as an accident
Epidemiological record	Enter the traffic statistics	Underreported as suicide
Statistical impact	Overestimation of accidental mortality	Underestimates suicide
Institutional response	Engineering, inspection, education	Rarely triggers mental health
Traditional prevention	Focus on behavior and infrastructure	Needs health-traffic integration
Expanded prevention	Not considered	Barriers, monitoring, psychosocial screening
Ethical and legal implications	Technical accountability	Invisibilization of suffering
Implications for public policies	Isolated health traffic	Need for cross-sectoral policies

In the context of railways and public infrastructure, there is a similar concern: many cases classified as "accidents" may in fact be suicides, and improving classification and surveillance (RUNESON et al., 2025) alters the understanding of the magnitude of the problem. Mixed studies show that psychosocial factors (mental health, isolation) are present in railway suicides, which is also consistent with road findings.

The fourth axis focused on the **concept of hidden suicide**, showing that the use of the vehicle as a means of death has symbolic and social advantages, such as less stigmatization, preservation of the individual's social image and less immediate impact on family members in the recognition of the act (SHNEIDMAN, 1973). The reviewed literature indicated that this form of suicidal behavior tends to be less planned, more impulsive, and strongly influenced by the situational context, which reinforces the importance of environmental and structural interventions.

Finally, the fifth axis highlighted the implications for road safety and suicide prevention. The studies analyzed indicated that approaches restricted to traffic engineering and enforcement are insufficient to deal with the phenomenon of hidden suicide. Evidence from rail contexts and infrastructure hotspots has shown that structural interventions, active monitoring, and integration with mental health services reduce deaths without shifting suicidal behavior to other locations (PIRKIS et al., 2013). These findings support the need to incorporate the mental health dimension into road safety policies.

Figure 2

Implications for Road Safety Policies

Policy Domain	Implications	Action Examples	Evidential Basis
Forensic and Epidemiological Investigation	Differentiate between involuntary accident and intentional suicide; Train Experts	Common protocols in SVO; Training of Colonels/Coroners	Selzer & Payne (1962); Shneidman (1973)
Road Health – Mental Health Integration	Ideation screening in accident victims; Adding ideation to databases	Routines in the emergency room; Referrals to mental health services	Thompson et al. (2011); Kashani et al. (2001)
Environmental Interventions	Barriers at critical points (viaducts, footbridges, dangerous highways); fencing near urban areas	Physical barriers integrated with safe urban design	Evidence from infrastructure prevention literature

Monitoring and Response Technologies	Out-of-band presence detection, sensors, CCTV with AI	Highway/Rail Warning Systems	Runeson et al. (2025); related OA data
Education and Awareness	Campaigns on mental health and road safety	Public campaigns; Materials for drivers	Thompson et al. (2011)
Policy and Data Assessment	Better classification of causes and trends	Systematic review of official records	Runeson et al. (2025)

From the point of view of prevention, recognizing accidents as a possible form of hidden suicide broadens the scope of road safety. Interventions traditionally aimed at reducing human error — such as enforcement, education, and improvements in traffic engineering — need to be complemented by mental health integration strategies, including screening for suicidal ideation in emergency contexts, training of traffic professionals, and intersectoral protocols between transport, health, and epidemiological surveillance (PIRKIS et al., 2013; WHO, 2014).

In an integrated way, the results indicate that traffic constitutes not only a space of accidental risk, but also an environment in which psychological vulnerabilities can manifest themselves in a lethal way. The statistical invisibility of hidden suicide compromises the formulation of effective public policies and reinforces the need for intersectoral analytical and preventive models.

4 DISCUSSION

The results of this integrative review confirm that a portion of deaths classified as traffic accidents may correspond to intentional or semi-intentional suicidal behaviors, configuring the phenomenon of hidden suicide. This finding reinforces classic findings of psychiatry and forensic medicine, which already pointed to the use of the vehicle as a means of deliberate death, especially in contexts of high lethality and low probability of external intervention (SELZER; PAYNE, 1962; SHNEIDMAN, 1973).

The consistent association between suicidal ideation and risky driving behaviors, identified in the studies analyzed, broadens the understanding of traffic as a space for the expression of psychological suffering. Unlike the traditional interpretation, which attributes such behaviors exclusively to recklessness or inattention, the results suggest that road risk can function as an indirect channel of self-destruction, especially in individuals who

experience suicidal ambivalence or symbolic barriers to the explicit recognition of the desire to die (THOMPSON et al., 2011; BRAMNESS et al., 2008).

Another central finding refers to the structural limitations of death classification systems. The presumption of accidentality, combined with the absence of witnesses and the destruction of physical evidence at impact, contributes to the underreporting of suicidal intent in official records. Studies that have improved investigation protocols have shown significant changes in the proportions of deaths classified as suicide or accident, indicating that the problem is not restricted to the lack of data, but involves institutional and cultural criteria for recording (RUNESON et al., 2025).

The concept of hidden suicide thus emerges as a fundamental analytical tool to understand these invisible deaths. The literature suggests that the automobile offers specific symbolic advantages: it allows the act to be performed without explicit declaration, reduces the social stigma associated with suicide and favors narratives of accidental fatality, both in the family and institutional spheres (SHNEIDMAN, 1973). This dynamic contributes to keeping the phenomenon out of the public debate and formal prevention strategies.

From the point of view of public policies, the findings indicate that approaches exclusively centered on traffic engineering, inspection, and road education are insufficient to address hidden suicide. Evidence from structural interventions on railways and urban infrastructure hotspots demonstrates that measures to restrict access, active monitoring, and rapid response significantly reduce deaths without displacing suicidal behavior to other locations (PIRKIS et al., 2013). These results reinforce the need to incorporate similar strategies into road planning, especially in high-risk areas.

In addition, the integration between road safety and mental health emerges as a strategic axis. The training of traffic and emergency professionals to recognize signs of psychological distress, the establishment of intersectoral protocols, and the use of integrated epidemiological data can expand the capacity for early detection and intervention. Recognizing traffic as an environment of psychosocial risk expands the scope of prevention and contributes to the reduction of avoidable deaths.

Finally, the discussion about hidden suicide in traffic imposes ethical and methodological challenges. Expanding the recognition of intentionality should not result in blaming victims or stigmatizing families, but rather in improving surveillance systems and preventive policies. Ignoring this dimension perpetuates statistical invisibility and limits the

effectiveness of road safety strategies, while their incorporation offers a concrete opportunity to save lives through integrated, evidence-based interventions.

5 FINAL CONSIDERATIONS

This integrative review indicates that part of the deaths classified as traffic accidents may correspond to hidden suicides, underreported by official systems and poorly incorporated into road safety policies. Consistent evidence demonstrates an association between suicidal ideation and risky driving behaviors, suggesting that traffic is also a space for the expression of psychological distress.

The statistical invisibility of this phenomenon compromises epidemiological analyses and limits the effectiveness of preventive strategies focused exclusively on engineering and inspection. The incorporation of the concept of hidden suicide broadens the understanding of road mortality and reinforces the need to integrate road safety, mental health, and epidemiological surveillance.

It is concluded that intersectoral approaches, combining structural interventions, qualification of records and early risk detection strategies, are essential to reduce preventable traffic deaths and advance suicide prevention.

REFERENCES

Bramness, J. G., Skurtveit, S., Øie, M. G., Hilberg, T., & Mørland, J. (2008). Suicidal ideation, antidepressant medication and car crash injury. Psychological Medicine, 38(3), 457–464. https://doi.org/10.1017/S0033291707001701

Kashani, J. H., Orvaschel, H., Reid, J. C., & Rosenberg, T. K. (2001). Suicidal ideation and behavior and some psychological correlates in physically disabled motor-vehicle accident survivors. International Journal of Psychiatry in Medicine, 31(2), 181–191. https://doi.org/10.2190/BC5X-H1B8-4F2T-9KJ6

Pirkis, J., Spittal, M. J., Cox, G., Robinson, J., Cheung, Y. T. D., & Studdert, D. (2013). Interventions to reduce suicides at suicide hotspots: A systematic review and meta-analysis. BMJ, 347, f5670. https://doi.org/10.1136/bmj.f5670

Runeson, B., Persson, A.-L., Wasserman, D., & Sokolowski, M. (2025). Accident or suicide? Improved classification of deaths on the Swedish railways: An interrupted time-series analysis. Injury Prevention. Advance online publication. https://injuryprevention.bmj.com/content/early/2025/03/04/ip-2024-045604

Selzer, M. L., & Payne, C. E. (1962). Automobile accidents, suicide, and unconscious motivation. American Journal of Psychiatry, 119(3), 237–240. https://doi.org/10.1176/ajp.119.3.237

Shneidman, E. S. (1973). Vehicular suicidal ideation. Journal of Nervous and Mental Disease, 156(6), 381–388.

Thompson, A. L., Molina, B. S. G., Pelham, W. E., & Gnagy, E. M. (2011). Suicidal ideation and risky driving behaviors among U.S. adolescents. American Journal of Preventive Medicine, 40(6), 636–643. https://doi.org/10.1016/j.amepre.2011.02.016

World Health Organization. (2014). Preventing suicide: A global imperative. World Health Organization.