

A rapid review of interventions to reduce suicide ideation, attempts, and deaths at public locations

April 2025

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EXECUTIVE SUMMARY

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What is a Rapid Review?

Our rapid reviews (RR) use a variation of the systematic review approach, abbreviating or omitting some components to generate the evidence to inform stakeholders promptly whilst maintaining attention to bias.

Who is this Rapid Review for?

This rapid review is intended for policymakers responsible for suicide prevention and organisations and individuals that manage public locations of concern for suicide.

Background / Aim of Rapid Review

Suicide deaths are tragic events and those that occur in public places have an impact not only on the deceased person and their family and friends, but also on members of the public. Having up-to-date information about the effectiveness of interventions not limited to physical means restriction allows policymakers and organisations managing locations of concern to choose the most appropriate evidence-based suicide prevention strategies for specific locations.

Results of the Rapid Review

Recency of the evidence base

Bibliographic database searches were conducted at the end of October 2024 and supplementary searches between November 2024 and January 2025 for literature published since 2014.

Extent of the evidence base

- 24 studies reported in 29 documents were identified, conducted in the UK (n=8), Australia (n=7), South Korea (n=3), Canada (n=2), USA (n=2), Denmark (n=1), and Japan (n=1).
- The studies covered railway or underground stations (n=10), bridges (n=8), cliffs or other natural heights (n=3), tall buildings (n=1), and multiple types of locations with no breakdown of data by type of location (n=2).
- The same study could include multiple types of locations and interventions.

Key findings and certainty of the evidence

- Surveillance technologies as a means of increasing opportunity for third-party intervention showed the most promise, although the evidence of their effectiveness was scarce and limited. Nine studies examined such technologies, including three of the same location and set of interventions, which we only count below once. In one study, having more closed-circuit television (CCTV) units was associated with fewer suicides at railway stations. Another study that tested a set of interventions including CCTV, infrared security fences, and a suicidal

behaviour recognition and alert system, provided some promising initial descriptive data that showed an increase in the number of prevented suicides. Three other studies showed that there was no change in outcomes following the installation of interventions including surveillance technologies. In the remaining two studies the effect could not be determined. Based on the assessment of the overall body of the evidence, there is a low level of confidence in the findings related to surveillance technologies because of the quality and designs of the studies.

- Promotion of suicide helplines as an intervention aimed at increasing opportunities for help seeking was examined in nine studies, including three of the same location and set of interventions (only counted once below). Two studies reported that the number of suicides increased after the introduction of the intervention. Three studies, of which two examined a set of interventions including helplines, observed no change. In two studies the effect could not be determined. The assessment of the overall body of evidence indicates that there is a low level of confidence in the evidence for this outcome.
- Other interventions evaluated included staff training; deployment of specialist staff; campaigns encouraging bystanders to intervene; a crisis café; blue lights at railway stations; suicide prevention messages, memorials, or notes other than official crisis line signage; spinning rollers at the top of fences that prevent gripping; and others. The effect of these interventions could not be determined with certainty but some of them appeared promising and warrant further research.
- There was not enough evidence to either support or refute that implementing interventions at locations causes displacement to other locations or suicide method substitution.

Research Implications and Evidence Gaps

- There is an urgent need for more high-quality research evaluating interventions aimed at reducing suicides at locations of concern other than physical means restriction. This is especially true if there is a risk that interventions can have unintended negative effects.
- Future research should examine which interventions work for who and in what circumstances.

Policy and Practice Implications

- More robust evaluations are needed before any of the interventions reviewed here can be recommended for implementation. To create a better evidence base, high-quality evaluations should be supported and encouraged.

Economic Considerations

- Future research evaluating interventions aimed at reducing suicides at public locations should consider the economic impacts of suicides in such locations from a wider societal perspective.
- As well as being a tragic event for families and communities, suicides can cost the economy at least £1.6 million per every life lost. These costs include emergency service, healthcare, and potential productivity losses.
- The loss of life due to suicide in Wales could cost the Welsh economy at least £537 million each year.