

Comments about Proposed Burrard Bridge Suicide Barriers

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Background

The following comments are based on my work as a gerontology doctoral student researching loneliness and depression; as a past crisis line volunteer with the Crisis Centre and Suicide Prevention Centre of BC; as a member of the City of Vancouver Seniors' Advisory Committee; and as someone who has had personal experience with suicide.

(As the Seniors' Advisory Committee has not had ample opportunity to discuss the suicide prevention barriers collectively, the following comments are solely mine.)

Evidence for the Effectiveness of Suicide Barriers

Although Council has already decided to adopt the recommendation to install suicide prevention barriers on the Burrard Bridge, I would be remiss if I did not first mention my concern about insufficient evidence demonstrating the effectiveness of barriers.

Although Vancouver Coastal Health has strongly recommended the installation of these barriers, they do not seem to have provided any *specific* evidence in support of their recommendations (i.e., actual studies). Considering the dramatic impact that the barriers will have on the Burrard Bridge and, no doubt, other bridges in the future, it is imperative that a strong case be made for the effectiveness of these barriers before going forward.

Given the difficulties inherent with individual studies on this topic (namely low statistical power), it is important to consider studies that use large sample sizes, including meta-analyses (i.e., pooled analyses of data from several individual studies)¹. A paper by [Pirkis and colleagues](#) describes the first meta-analysis published on this topic. Based on nine intervention studies (including a [Canadian one](#)), the authors concluded that there is a net annual reduction in all jumping suicides following the construction of suicide barriers. However, they also stated the following: "The studies [used in the meta-analysis] could not capture the extent to which individuals who were prevented from jumping by barriers and other structural measures may have travelled outside the area to jump, or may have adopted other methods." They make similar comments at the end of a [more recent meta-analysis](#).

¹ Keeping in mind, of course, that meta-analyses are only as good as the studies they include. Social science research suffers from the "file drawer phenomenon," whereby journals tend to publish studies reporting statistically significant findings, rather than those reporting null results (i.e., studies showing that barriers do not work). This can introduce serious bias in meta-analytic studies.

Also of note, a [paper by Glasgow](#) reported a positive, statistically significant association between jumping suicides and the presence of unsecured bridges across the United States, but no statistically significant association between presence of unsecured bridges and *total suicide rates* (i.e., all types of suicide).

Taken together, these important studies indicate that although barriers are effective in reducing specific types of suicide at specific locations, there is insufficient evidence that they reduce total suicide rates—which should be the most important goal. In other words, there is currently no evidence that suicide barriers actually save lives. Granted, the low annual base rate of suicides by jumping is small and may have little impact on overall suicide rates. On the other hand, given the cost of suicide barriers and the possibility to save many more lives by spending the same amount of money on other life-saving measures, it is important to be certain that barriers can reduce total suicide rates and not merely shift suicides to different locations or prompt people to use alternate methods.

Many have argued that suicide barriers are effective because, contrary to popular opinion, suicide is an impulsive act and most people who are frustrated in their suicide attempts will not simply try again somewhere else (e.g., another bridge). Advocates of this position cite a [1978 study](#) showing that most people who attempted suicide at the Golden Gate Bridge but were subsequently stopped by police or passers-by did not go on to die by suicide² in the future. Therefore, if a barrier can prevent one-time suicide attempts, it will save countless lives in the future. These statements are only partly true. Although suicide is strongly associated with impulsivity, drawing conclusions from survivors from the Golden Gate Bridge is problematic. First, this research does not account for self-selection bias: it is unclear if the individuals in this study were serious about jumping, or whether they simply chose a prominent location in an effort to make a public “cry for help”. If the latter, then these individuals are not representative of those that we are concerned about saving through the use of barriers. More importantly, the intervention in this study was a human intervention, not a physical barrier, so it is inappropriate to use this as evidence in support of installing a physical barrier.

Advocates have also cited [another study](#) showing that Golden Gate Bridge survivors indicate that they would not attempt suicide anywhere else. Individuals in these types of studies may differ qualitatively from other attempters because they are willing to be studied by researchers, and thus cannot be considered representative of all attempters. Indeed, my research colleagues in gerontology have had a very difficult time finding a sufficient number of suicide attempters (and their family members) who are willing to talk about their experiences and provide information about future suicide attempts.

² Suicide prevention and support professionals, as well as family members of survivors, prefer the term “die by suicide” rather than “commit suicide”.

For these reasons (and others cited by [Glasgow](#)), I am unconvinced that suicide barriers save lives. However, since the barriers have already been approved, I will now turn to my comments about the proposed barrier designs.

Impact of a Fencing System

In listening to Mr. Dobrovolny's comments at last week's meeting of the Standing Committee on Transportation, Planning and the Environment, I formed the impression that staff are leaning heavily in favour of a fencing system rather than a far less intrusive netting system. Given serious concerns raised by heritage advocates as well as people who regularly use the bridge, I would implore staff to give more thought to the feasibility of a netting system (recognizing, of course, that staff have already worked tirelessly on this project). All considered, it seems like this approach would satisfy everyone to some degree—those concerned about safety, those concerned about heritage preservation, and those concerned about the subjective experience of using the bridge. Given that plenty of arguments have been made about safety and heritage, I will focus on the last point, particularly as it relates to views.

Although Vancouver has improved immeasurably since I moved here in 2000, I have also seen a number of gradual changes that have robbed it of some of its special qualities—the biggest being the encroachment of views by various structures. We have gone out of our way to preserve view cones, but many street-level views have gradually been lost, and now, with the prospect of suicide fencing, views from our bridges could be impeded, too. This may seem trivial or insensitive in the context of suicide, but I would argue that it is not.

Our visual experience of the natural environment plays a critical role in quality of life—and quality of life is a highly laudable goal, given that Vancouver prides itself on international rankings for livability, and the fact that people are less likely to attempt suicide if they have something to enjoy and look forward to in life. Many residents forego lucrative careers and affordable housing in exchange for Vancouver's natural beauty and the wonderful opportunities it provides for recreation and healthy living. Nature-lovers, urbanists, photographers, and people who value fitness flock to our city because of its unique surroundings. View-obstructing additions to individual structures may not seem major, but they make a big difference when, cumulatively, they rob citizens of the ability to appreciate and interact with their environment—in other words, something to look forward to in their daily lives.

This point is very important from the perspective of older adults. As you may be aware, the Seniors' Advisory Committee was successful in winning recognition from the provincial government as an "[Age-Friendly Community](#)." We are also working with the City to achieve certification from the World Health Organization as a "[Global Age-Friendly City](#)." In fact, Council has committed to this work by passing its first-ever Age-Friendly Action Plan, by which we must abide in order to maintain our provincial certification and achieve WHO designation. An age-friendly city is one that, among other things, promotes active aging and social participation. The

beautiful views enjoyed from our iconic bridges go a long way towards encouraging older adults to leave their homes and walk or cycle, often with other people. In a city known for high rates of loneliness (see a [recent study by the Vancouver Foundation](#)), not to mention often depressing weather, any alterations which affect the experience of people crossing the Burrard Bridge could reduce their enjoyment and use of it, thus possibly impacting physical and social well-being.

Moreover, although much has been said about the impulsive nature of suicide and how fences can prevent them, we often forget how something as seemingly trivial as a nice view can shift a depressed person's mood and, in turn, minimize suicidal feelings. Given the capricious nature of suicidal feelings, this is not a far-fetched claim.

Council has argued that the \$35 million budgeted for the entire bridge project will help improve usability, access, and livability more generally, but this will be for naught if people become less inclined to use the bridge. I can verify that several people in my neighbourhood have said that they will stop using the bridge if it incorporates visually-obstructive fencing that turns it into a mundane, utilitarian passageway.

Given how a fencing system would impact the experience of using the bridge, I would strongly urge staff to consider the feasibility of a netting system.

Effectiveness of Netting

Although netting as a suicide barrier has not been studied as much as fencing (though I am sure this will change in future), one [study of netting used on a bridge in Bern, Switzerland](#) found that it has been effective in deterring jumping suicides in the city. Given the effectiveness of the netting, San Francisco adopted this approach for the Golden Gate Bridge after strong public opposition to the fencing system that had been proposed.

Some have argued that netting does not provide the same kind of psychological deterrent against suicide that fencing does, owing in large part to its relative invisibility. This is unconvincing, for three reasons. First, the netting system in Bern has been so effective that it has not yet been used (at least up to the date of the Reisch study). Second, given the media coverage surrounding the proposed suicide barrier on the Burrard Bridge, the presence of netting will undoubtedly be well-known. Finally, the netting would probably be visible from a distance and by approach (although I do not know if it would be visible from the bridge deck).

Several practical issues with netting have also been raised, including those pertaining to debris and maintenance. Although more maintenance would be needed for a netting system, it would also be more environmentally friendly because less debris would fall into the water (e.g., would capture garbage being thrown overboard by passers-by). Manpower would also be required to retrieve a jumper from the net,

although I would see this as an advantage because it would provide an invaluable opportunity to provide support for that person.

On the whole, it would seem that the disadvantages of a netting system are not insurmountable and that this system would probably satisfy the most people, including those concerned about safety, those concerned about usability, and those concerned about heritage preservation. This appears to be why San Francisco chose a netting system—and if it is good enough for the Golden Gate Bridge, one of the world’s biggest suicide “hotspots,” then surely it would be good enough for Vancouver (notwithstanding my reservations about the effectiveness of barriers in reducing *overall* suicide rates).

Going Forward

Given the hard work that staff have done thus far, I understand their desire to move quickly to the next phase, but I hope they will keep a very open mind and give a second, more in-depth look at the feasibility and acceptability of netting. Once we pick an option, it will be difficult to go back, so we must get it right the first time. Perhaps it would be profitable to consult with counterparts in San Francisco to learn more about their experience with netting on the Golden Gate Bridge, as well as to convene a meeting with stakeholders (including interested members of civic advisory committees) to provide timely feedback about design options.

In the end, I trust that staff will make the best decision for the residents. I thank them for all of their hard work and wish them the best of luck with this project.

Respectfully submitted,

Eddy Elmer