Dr. Lisa Firestone
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Dear Dr. Firestone,

Thank you for sending the articles on means restriction. I've read a few of them already, but some are new, and I will take a careful look over the next couple of weeks.

At the risk of seeming ungrateful, I'd like to clear up some misunderstandings about my criticism of Seiden's study. I noted in your letter, I had two major concerns with Seiden's study. The first was a self-selection bias, and the second was whether the possibility of displacement and substitution was actually addressed.

A self-selection bias occurs when individuals have some characteristic that leads them to both wind up in our sample (the self-selection) that also affects their observed behavior (the bias). Note that concern with self-selection bias is not new to the suicide prevention literature. For instance, there is evidence that the higher rate of suicide in the Western United States is not due to the local social environment, but self-selection—suicidal people are more likely to move to the West Coast and also more likely to commit suicide, creating a geographical difference in suicide rates that might mistakenly lead us to conclude there is something about the local social environment that causes suicide (see Lester 1995 Social Science and Medicine). Chew et al. (2000 Population Research and Policy Review) raise a similar concern when studying the relationship between gambling and suicide—suicidal individuals may be more likely to live in areas where gambling is common, leading us to mistakenly conclude that gambling causes suicide.

Seiden's study is also likely to suffer from self-selection bias. To simplify the discussion, imagine we have two distinct groups of people that go to the Golden Gate Bridge and threaten to jump. One group is serious about committing suicide, and will jump. The other group does not actually intend to commit suicide, and is only going to the bridge to seek help, and thus will not jump now or in the future. If this is the case Seiden's study would have perfect self-selection bias. The only people Seiden can observe are those that had no intention...
of committing suicide, as all of those serious about committing suicide jumped. Thus, we have some individual characteristic that leads people to wind up in the sample (going to the Golden Gate Bridge but not jumping) that also affects their observed behavior (not committing suicide in subsequent years). This in turn might lead us to mistakenly conclude that a barrier would save lives.

While the example above is clearly an oversimplification, I hope it at least illustrates the type of self-selection bias likely to be present. In a TIME magazine article (August 24, 1970) Seiden himself mentions the fact that not all those who threaten suicide from the Golden Gate Bridge are serious about it (although this is not mentioned in his 1975 article). All of these “pseudo suicides” would be in Seiden's sample, meaning that his study suffers from an unknown amount of self-selection bias. This makes it difficult to draw meaningful conclusions about the likely effectiveness of suicide prevention barriers from this study.

I should also note here that my analysis of the self-selection bias in Seiden’s study did not involve comparing the study group to the group of people who attended the public hearings on the Cold Spring Bridge barrier project. Instead, that footnote was just providing another example of a self-selection bias — we had an individual characteristic (a strong desire to build the barrier) leading people to be in our sample (attend the meeting) and affecting the behavior we care about (raising their hands in support of the barrier). I was simply pointing out that Caltrans claim of overwhelming public support was also plagued by self-selection bias.

The second, more important concern I had with Seiden's study is that it is in effect assuming away the displacement and substitution problems. This concern holds even if you think that there is no self-selection bias to worry about, and has nothing to do with assumptions about the sincerity of those threatening to commit suicide.

We see from Seiden's study that individuals attempting suicide on the Golden Gate Bridge but deterred generally do not go on to commit suicide later. At first glance, this looks like evidence that there would not be displacement if a barrier was constructed. However, this is not the case.

The key distinction is subtle, and is between stopping someone from committing suicide at a place where suicide is possible, and making suicide impossible at a particular location. If displacement and substitution are occurring, making suicide impossible at one location will simply lead individuals to substitute a different place or a different method.

The individuals in Seiden's study were saved when they went to a location where suicide was possible and were then talked out of it. Would these individuals have still gone to the same location and been saved by a barrier, given that a barrier would make suicide at that location impossible? Or would the impossibility of suicide at that location have led these individuals to substitute a different location or method for their suicide attempt? To conclude that Seiden's study has demonstrated that barriers save lives we must assume that had a barrier been in place on the Golden Gate Bridge the individuals in his study would not have substituted a different place or method. In other words, to interpret Seiden's study as evidence of the effectiveness of barriers we must assume there is no displacement or substitution.

Put another way, if the Golden Gate Bridge had originally been built with suicide barriers, would the 515 people in Seiden's study have never attempted suicide, or would Seiden have wound up conducting his study on the Bay Bridge?
A final concern that I did not mention in my review of Seiden's study is that the intervention in Seiden's study was human rather than inanimate. Would a barrier have the same effect on a person contemplating suicide as another person talking to them and trying to help? This is another unspoken assumption in Seiden's study that bears more thought.

At any rate, I hope this helps to clarify my views on the Seiden study. Thank you again for sending the articles.

Sincerely,

[Signature]

Garrett Glasgow