Original Article

A culture gap in the United States: Implications for policy on limiting access to firearms for suicidal persons

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Abstract Suicide is a critical public health problem worldwide. In the United States (US), firearm ownership is common, and firearms account for the majority of deaths by suicide. While suicide prevention strategies may include limiting access to firearms, the contentious nature of gun regulations in the US, particularly among members of rural communities, often gives rise to constitutional concerns and political polarization that could inhibit suicidal persons from seeking the help they need. We examine potential outcomes of public health strategies in the US that encourage limiting access to firearms for populations who both value firearm ownership and are vulnerable to suicide. Based on preliminary results from a firearm safety study, we argue that attempts to limit access to firearms among those at risk of suicide will only succeed when the most affected cultural groups are engaged in collaborative discussions.

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Introduction

Suicide is a major, preventable public health problem, accounting for 56 % of all violent deaths worldwide. The geographical focus of our study is in the United States (US), where, in 2013, more than 41,000 persons died by suicide (a rate of 12.6 per 100,000). Across all ages, suicide is the 10th leading cause of death in the US, claiming more than twice as many lives as homicide. Perhaps not surprisingly, given the relatively unrestricted legal rights to own guns in the US, more than

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51 % of all deaths by suicide in a given year occur with the use of firearms.² In spite of national efforts to reduce the rates of suicide, including approximately \$40 million per year for research from the US National Institutes of Health in the 10 years from 2004 through 2013, suicide continues to be a pressing problem with no evidence of an overall decrease in suicide deaths or attempts in the US.³

Research and policy initiatives support limiting access to 'lethal means'—defined as implements, substances, weapons, or actions capable of causing death in a person with suicidal ideation—particularly firearms, as a method of reducing suicide rates. 1,4 Adopting this strategy in the US poses unique cultural challenges. Policy recommendations and the US state laws pertaining to safe gun storage, increased regulation for gun purchases, and preventing those at risk of violence from gun ownership have emerged as key strategies for promoting safety, 5,6 and most gun owners recognize that there is a need to do more to reduce gun-related deaths, including suicides.⁷ However, policies that restrict ownership are highly contentious. Public discussion about policies that limit access to firearms often gives rise to constitutional concerns and political polarization among fiercely divided publics surrounding the right to own firearms versus calls for public safety over individual freedom.⁸ In the US, many consider the right to own a gun to be enshrined in the constitution and necessary for preserving individual freedom and the ability to resist an unjust government. Thus, public discussion about limiting gun access triggers constitutional concerns. In rural areas where the culture of gun ownership is often antithetical to any type of gun restriction, concern can be intense.9 The high visibility and impact of policy decisions and gun-control regulations may lead to worries about the potential permanent loss of one's firearms—or at worst, could inhibit suicidal persons in the US from seeking help.

Although limiting access to firearms through national policy changes may impact suicide rates at the population level, this paper focuses specifically on the development of effective communication strategies between health care providers in rural communities in the US and atrisk individuals and their family members. The U.S. Department of Health and Human Service characterizes suicide prevention as an important public health issue, and identifies primary care as a critical resource for intervening with those at risk of suicide. Given that up to 64 % of those who die by suicide in the US have had contact with their

primary care provider within a year of death, it makes sense to prioritize primary care for identifying and counseling persons at risk of suicide and their family members.

Based on the contentious firearm debates in the US, we suggest that discussions between patients and providers in primary care settings about voluntarily limiting access to firearms during periods of suicidal ideation will be unlikely to achieve successful outcomes without identifying and implementing culturally appropriate messages about firearm safety. Changes in the US health care law in 2010 as part of the Federal Patient Protection and Affordable Care Act, which limited the collection of data related to firearm possession as part of the ordinary delivery of health care services, broadened protection of a citizen's right to bear arms (also known as the second amendment of the US Constitution). 12 In light of restrictions on asking questions about patients' gun ownership, the need for culturally appropriate interventions takes on even greater importance. We recognize that in many cases, the US rural primary care providers are themselves gun owners and second amendment supporters. We discuss the 'culture gap' here as that which emerges between a firearm owner and an ideologically different system of power she or he may encounter in a primary care setting—often tied to the idea of 'big' and more 'liberal' (and hence anti-gun) government.

While our focus on the US addresses a unique set of sociopolitical issues, our analysis can add a dimension to the wider conversation on violence promoted by the World Health Organization (WHO). Efforts to prevent violence would do well to include an emerging understanding of firearms and other 'lethal means' as cultural objects, along with an analysis of how and why interventions are likely to be more effective when oriented to the local cultural contexts in which people live and make decisions.

We begin by describing the relevance of firearms, firearm safety, and cultural perceptions of risk for suicide prevention in rural communities in the US. We then present preliminary research findings about potential for shaping and delivering effective messages about restricting lethal means for suicide in rural primary care settings. We conclude by discussing the importance of cultivating trust, understanding diverse cultural worldviews, and attending to varied perceptions of risk in the development of interventions.



Firearms and Increased Risk of Suicide

Many factors affect suicide rates, including psychiatric, biological, situational, and familial contexts and characteristics. Yet these factors fail to explain why residents in rural areas of the US are 191 times more likely to die by suicide compared with their counterparts in the US cities. To One explanation is that there is a strong relationship between the proportion of suicidal acts that prove to be fatal and the availability of firearms in the home also, people living in rural areas are twice as likely as those in urban areas to own a gun.

After an extensive review of the US case-controlled studies that examined the connection between firearms and suicide, Miller et al¹³ concluded that a firearm in the home leads to an increased risk of suicide. They indicated (1) that the higher risk applies not only to the gun owner but also to the owner's spouse and children; (2) that the relative risk of suicide with a firearm in the home is greater for young people; and (3) that the risk is the greatest for those without known psychopathology. Firearms in the home intensify suicide risk because they increase the likelihood that a suicide attempt will involve a gun, and guns by their nature are highly lethal.¹⁵ Given the numbers of suicide deaths by firearm and the risk of having a firearm in the home, firearm safety must be a key component of suicide prevention.

Firearm Restriction and Cultural Perceptions of Risk

The likelihood that a particular method will lead to death relates to its degree of lethality, ease of use, and accessibility. ¹⁵ 'Means restriction', or the limitation of access to lethal means, can be an effective and important population strategy for reducing suicide mortality. ¹⁵ Means restriction includes making methods less lethal, less easy to use, or less accessible.

While some suicides are deliberative and involve careful planning, many appear to have an impulsive component and occur during a short-term crisis. ¹⁶ One of the premises of means restriction is that making a more lethal method unavailable or difficult to access during a moment of impulsivity or acute stress may thwart the attempt, and the high risk period may pass. The lethality of firearms and the fact that restricting access to lethal means during periods of high risk might

lower the chance of death by suicide is not surprising; yet talking about 'means restriction' or 'limiting access', particularly as it relates to firearms, is potentially threatening to some cultural groups that place a high value on gun ownership. In the US, the threat of limiting access is especially acute in the current political context of highly contentious debates about second amendment rights, and greater risk of terror and mass shootings.¹⁷

Barber and Miller¹⁵ have argued that appealing to individual decision making rather than seeking legislative change may more likely help reduce a person's access to firearms. We hypothesize that to be most effective, it is necessary to frame these appeals using culturally appropriate language derived from a clear understanding of gun owners' worldviews. Research in different cultural contexts around the world has shown that cultural worldviews profoundly influence understandings of risk^{18,19} and the social meaning of firearms.^{20,21}

Counseling on firearm safety, therefore, requires a deep understanding of the sociocultural frameworks within gun-owning communities. In these high-stakes settings, it is critical to realize that conversations between health care providers and patients about firearm restrictions are actually conversations about values, deep ties to family and history, and complex cultural constructions of risk. It is likewise important to recognize that there are multiple subpopulations of firearm owners, each of whom may need others to value and respect his or her own cultural perspectives and preferences.²² Collaborating with firearm owners through informal networks and formal research agendas is an important aspect of a public health system that establishes a culturally relevant policy for voluntary means restriction and ultimately reduces suicide rates.

Methods and Preliminary Findings: Promoting Firearm Safety for Suicide Prevention in Primary Care Settings

In the research currently underway, we seek to identify culturally relevant strategies for promoting firearm safety in the US rural primary care settings with patients and their family members. We defined rural communities as those with a population of less than 10,000 persons in geographically isolated areas. The project is the result of a collaboration between Oregon State University – Cascades and the La Pine



Community Health Center. Over a period of 6 months, we have conducted a series of focus groups (n = 5) and key informant interviews (n = 3) with rural gun owners and publicly known leaders from the Central Oregon gun community. We wanted to understand better the culture of gun ownership in rural environments, including acceptable, nonthreatening methods of improving gun safety that respect the rights of gun owners while keeping suicidal patients safe. In total, we met with 39 participants, 18 years of age and above (22 males and 17 females).

The focus group and key informant interviews guided participants through the following topics with questions including these examples:

- (1) General firearm use and safety: "What do you do in your household to promote gun safety?";
- (2) Firearm safety communication patterns and specific firearm safety circumstances: "If there was someone who was struggling with mental illness in your home, how might that affect your firearm safety precautions?"; and
- (3) Communication about firearm safety in a health care setting: "If you or a family member was struggling with mental health issues, how would you feel if your health care provider asked you about your firearm safety precautions?"

Findings have emerged from these interviews that highlight the importance of engaging in cooperative discussions with community members who own firearms. We highlight themes from this work-inprogress briefly, then return to the relevant literature that supports our approach going forward. To begin with, the demographic we have targeted tends to own multiple firearms, keeps them loaded at all times. and often does not lock or store them in secure locations. While our interviewees reported being more likely to physically secure firearms when children are present, their most frequently cited basis of firearm safety has been serious training of children and young adults, primarily through instruction from family members, and secondarily through formal firearms training such as hunting safety courses. In the context of the ways community members use guns (such as hunting or target shooting), some participants indicated that social norms support talking about firearm safety with friends, family members, or strangers. What they particularly do not consider acceptable to talk about, and,

indeed appear to consider a cultural taboo to discuss with strangers, is where they keep their guns, how many guns they have, and other details of firearm ownership and safety in the home. Our demographic findings (that people have multiple guns, loaded, within arm's distance) taken together with the nature of gun safety taboos point to the possibility that traditional, public health-driven, firearm safety messages (e.g., storing ammunition separately from weapons, using a gun safe, physician in-take forms) may be ineffective for at least some portion of the gun-owning population.

Several participants have had direct experience confronting individuals whom they perceived as potentially suicidal about voluntarily restricting or removing firearms. In these actual situations, and in focus group discussions between participants about hypothetically similar situations, participants have described how essential it is for the person at risk of suicide to have trust in the person asking the individual to relinquish a firearm. Participants suggest that trusted friends or family members are the most likely to succeed in this sort of informal intervention.

A substantial number of participants reported that the issue of trust has also been highly relevant in the primary care setting. Comments focused on obstacles that inhibit some primary care providers from cultivating the kind of rapport they need in a standard, time-limited, interaction to have a positive effect on means restriction. People perceived direct questions about firearm ownership (including intake checklists) or means restriction from someone who has not established trust as potentially threatening and antagonistic. Participants frequently cited the fear that one may end up on a government registry on the basis of one's mental health status and firearm ownership.

Participants have been more optimistic about the effects of making resources available in a primary care setting in a nonthreatening way one that increases the likelihood that a friend or family member will act to restrict access from an individual at risk of suicide. Thus, means restriction would become a basic extension of cultural values that emphasize firearm safety and care for friends and family. One group came to the suggestion of including training for individuals about voluntary means restriction in any firearm safety course, so that all gun owners learn to recognize when it is appropriate to temporarily relinquish one's own firearms or to facilitate means restriction for a loved one. Interventions that approach firearms and suicide prevention



from a safety perspective, rather than in terms of loss of access, appear more acceptable to rural firearm owners.

Discussion: Bridging the Gap

Although our investigation into promoting firearm safety for suicide prevention in primary care is very much in its infancy, we have found it heartening to engage in highly productive discussions with our research participants about sensitive topics across the contentious cultural divides of gun rights and gun control in the US. While some participants have been initially suspicious of our intentions and emphasis on firearms restriction as a suicide prevention method, our strategy of respecting gun rights has heightened trust and inspired creative discussion between participants and the research group.

Also heartening is that emerging research demonstrates bridging cultural gaps is possible and how we speak about controversial topics can be critical in overcoming perceptions of difference, especially when all participants have a common goal. The challenge comes in *naming* a common goal and establishing solidarity across cultural divides. As Earle writes

[in] controversial hazards of high moral importance, solidarity is nonexistent. The main concern is establishing solidarity. Risk communication is a political process requiring leadership to demonstrate ways in which new, more inclusive groups can be formed so that people can work together on their common problems²³ (p. 571).

It is possible to effectively name the common goal of suicide prevention if messages about safety and voluntary means restriction come from someone who shares the moral values of one's ingroup—the social, political, ethnic, or other cultural group that one belongs to and with which one shares systems of meaning. Substantial research indicates that people often act in a manner consistent with affirming their loyalty and membership in important ingroups,²⁴ and research shows the effects of framing persuasive messages in the moral language of one's ingroup across a range of issues, including attitudes about the environment, same-sex marriage, and military spending.²⁵ Thus, perceiving that appeals are coming from the trusted ingroup members

who share one's core values directly causes, at least in part, changes in individuals' attitudes and behaviors. In a physician's office, using neutral language concerning firearms, which does not trigger the patient to identify the physician as a member of a different (and less trustworthy) cultural group, or identifying shared values between patient and physician upon which a meaningful discussion of voluntary means restriction can occur, may accomplish this solidarity.

This research on ingroup persuasion and the effectiveness of communicating messages with language and moral values endorsed by the target audience substantiates what we are finding in preliminary focus group data, namely that ingroup affiliation is key to building trust and that the art of caring is the most effective if accepting advice is an act of ingroup performance and consistent with ingroup values. One participant explicitly suggested that "people who love guns, love you"-demonstrating how important it is that those at risk perceive cultural peers as the individuals asking for their participation in a larger cultural project to keep people safe. In this case, we find that working with gun owners, gun-rights advocates, and local leaders in the gun community is not only beneficial for identifying culturally appropriate language, but we hope also makes it possible to establish voluntary means restriction as a cultural norm that demonstrates the performance of—not the breaching of—cultural values and identity marking. In our focus groups, it is clear that participants have high motivation to help friends and family at risk of suicide, and that people are increasingly willing to talk about suicide as a public health problem. In that light, grounding interventions in preexisting cultural norms, such as caring for friends and family, is a way to empower pro-gun communities to solve problems themselves and to reaffirm identity markers and cultural values.

Conclusions

Within the scope of this special issue, our paper investigates the framing of cultural messages and morally charged public discussions around firearms in the US, particularly in rural areas, and how to create suicide intervention strategies through voluntary restriction of lethal means. We do not expect the same contexts and ideological positions to occur throughout the world—though there may be some similarities. The special situation of the US teaches us that people may have particular



preexistent relationships with firearms and other lethal means prior to suicidal ideation and risk of harm from suicidal behavior. As such, lethal means restriction is not as straightforward as we would like it to be. Strategies of intervention to prevent suicide that include restricting access to lethal means inevitably have cultural and ideological challenges that are specific to and embedded in local contexts. While wide-scale lethal means restriction may be possible and successful at a population level and within some political contexts, in many cases across the world, political solutions such as widespread bans on all guns are not feasible. When this is the case, voluntary lethal means restriction becomes a critical tool for saving lives.

Through our work, we have come to believe that voluntary lethal means restriction rests, in part, on developing trust and cultural competency between the person at risk and the person asking for lethal means to be voluntarily removed. To be successful, this life-saving conversation must occur within a language and ideological framework that makes sense to the person experiencing suicidal ideation. To get there, we believe that community-driven interventions have an important role in reducing the rate of suicide through understanding cultural perceptions of risk, embedding messages in preexistent cultural values, and developing explicit strategies for intervention that are respectful of the local culture of the affected individuals. This call for cultural competency in health interventions is resonant in the US and far beyond.

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References

- 1. World Health Organization. (2014) Preventing suicide: A global imperative, http://apps.who.int/iris/bitstream/10665/131056/1/9789241564779_eng.pdf, accessed 13 April 2016.
- 2. Centers for Disease Control and Prevention. (2013) National violent death reporting system, http://www.cdc.gov/violenceprevention/nvdrs/index.html, accessed 13 April 2016.
- 3. Centers for Disease Control and Prevention. (2015) Suicide: Facts at a glance, http://www.cdc.gov/violenceprevention/pdf/suicide-datasheet-a.pdf, accessed 13 April 2016.
- 4. Florentine, J.B., & Crane, C. (2010) Suicide prevention by limiting access to methods: A review of theory and practice. Social Science and Medicine 70(10): 1626–1632.
- 5. Lewiecki, E.M. and Miller, S.A. (2013). Suicide, guns, and public policy. *American Journal of Public Health* 103(1): 27–31.
- 6. Anestis, M.D., and Anestis, J.C. (2015) Suicide rates and state laws regulating access and exposure to handguns. *American Journal of Public Health* 105(10): 2049–2058.
- 7. Barry, C.L., McGinty, E.E., Vernick, J.S. and Webster, D.W. (2015) Two years after Newtown—Public opinion on gun policy revisited. *Preventive Medicine* 79: 55–58.
- 8. Caine, E.D. (2013) Forging an agenda for suicide prevention in the United States. *American Journal of Public Health* 103(5): 822–829.
- 9. Celinska, K. (2007) Individualism and collectivism in America: The case of gun ownership and attitudes toward gun control. *Sociological Perspectives* 50(2): 229–247.
- 10. U.S. Department of Health and Human Services Office of the Surgeon General and National Action Alliance for Suicide Prevention. (2012) 2012 National strategy for suicide prevention: Goals and objectives for action, www.surgeongeneral.gov/library/reports/national-strategy-suicide-prevention/index.html, accessed 13 April 2016.
- Ahmedani, B., Simon, G., Stewart, C., Beck, A., Waitzfelder, B., Rossom, R. and Solberg, L. (2014). Health care contacts in the year before suicide death. *Journal of General Internal Medicine* 29(6): 870–877.
- 12. U.S. Department of Health and Human Services. (2010) Patient Protection and Affordable Care Act, http://www.hhs.gov/healthcare/about-the-law/index.html, accessed 13 April 2016.
- 13. Miller, M., Azrael, D. and Barber, C. (2012) Suicide mortality in the United States: The importance of attending to method in understanding population-level disparities in the burden of suicide. *Annual Review of Public Health* 33(1): 393–408.
- 14. Pew Research Center. (2013) Why own a gun? Protection is now top reason, http://www.people-press.org/2013/03/12/section-3-gun-ownership-trends-and-demographics, accessed 13 April 2016.



- 15. Barber, C.W. and Miller, M.J. (2014) Reducing a suicidal person's access to lethal means of suicide: A research agenda. *American Journal of Preventive Medicine* 47(352): S264–S272.
- 16. Hawton, K. (2007) Restricting access to methods of suicide: Rationale and evaluation of this approach to suicide prevention. Crisis: The Journal of Crisis Intervention and Suicide Prevention 28(Suppl 1): 4–9.
- 17. Kahan, D. and Braman, D. (2006) Cultural cognition and public policy. Yale Law and Policy Review 24: 147–170.
- 18. Douglas, M. and Wildavsky, A. (1982) Risk and Culture: An Essay on Selection of Technological and Environmental Dangers. Berkeley, CA: University of California Press.
- 19. Kahan, D. and Braman, D. (2003) More statistics, less persuasion: A cultural theory of gunrisk perceptions. *University of Pennsylvania Law Review* 151(4): 1291–1327.
- 20. Cooke, C.A. (2004) Young people's attitudes towards guns in America, Great Britain, and Western Australia. *Aggressive Behavior* 30(2): 93–104.
- 21. Keegan, M. (2005) The Proliferation of Firearms in South Africa, 1994-2004. Ottawa: OXFAM Canada.
- 22. Betz, M.E. and Wintemute, G.J. (2015) Physician counseling on firearm safety: A new kind of cultural competence. *Journal of the American Medical Association* 314(5): 449–450.
- 23. Earle, T.C. (2010) Trust in risk management: A model-based review of empirical research. *Risk Analysis: An International Journal* 30(4): 541–574.
- 24. Kahan, D. (2013) Ideology, motivated reasoning, and cognitive reflection. *Judgment and Decision Making* 8(4): 407–424.
- 25. Feinberg, M. and Willer, R. (2015) From gulf to bridge: When do moral arguments facilitate political influence? *Personality and Social Psychology Bulletin* 41(12): 1665–1681.

Editors' Note

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