


## COMMENTARY

## Preventing Suicide in Rural Communities During the COVID-19 Pandemic

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Individuals in rural communities are at increased risk for suicide.<sup>1,2</sup> While the impact of Coronavirus Disease 2019 (COVID-19) continues to unfold,<sup>3</sup> it is likely that suicide risk factors among individuals residing in rural areas will be exacerbated and suicide rates may subsequently increase.<sup>4</sup> Awareness of these factors is essential to ensure that appropriate steps are taken to prevent suicide in rural communities, both during and in the aftermath of this pandemic. In this commentary, we delineate key considerations for doing so, with potential solutions summarized in Table 1.

### Interpersonal Factors

First and foremost, *interpersonal factors* are well-established risk factors for suicide, including social isolation,<sup>5,6</sup> loneliness,<sup>6</sup> lack of belonging,<sup>7</sup> and perceived burdensomeness.<sup>7,8</sup> Residents of rural communities are more likely to experience *social isolation*, relative to those living in urban communities.<sup>9</sup> As rural areas tend to

be less densely populated, social support can be more difficult to obtain during acute suicidal crises. These interpersonal risk factors for suicide are likely to be exacerbated amidst the current pandemic, especially among vulnerable populations (eg, those who are elderly or immunosuppressed), who may experience greater physical isolation due to concerns about infection.<sup>10,11</sup> Life-saving physical distancing<sup>i</sup> policies aimed at “flattening the curve”<sup>12</sup> may also inadvertently exacerbate *social isolation*, *thwarted belongingness*, and *perceived burdensomeness*.<sup>13,14</sup> For example, quarantine, mandatory teleworking requirements, and community-based closures may prompt social isolation, as well as decreased belongingness and increased burdensomeness.<sup>13,14</sup> In addition, major stressors, such as housing instability,<sup>15</sup> unemployment,<sup>16</sup> and health-related concerns<sup>17</sup> characteristic of this pandemic may increase perceived burdensomeness and risk for suicide.<sup>18,19</sup>

Another key interpersonal risk factor that also may be exacerbated during the COVID-19 pandemic is *interpersonal violence* (ie, physical or sexual violence, such

**Table 1** Challenges and Potential Strategies for Mitigating Suicide Risk in Rural Communities During the COVID-19 Pandemic

Challenge	Potential Solutions
Exacerbation of interpersonal risk factors for suicide due to physical distancing requirements and psychosocial stressors during COVID-19 (eg, social isolation, loneliness, lack of connection, perceived burdensomeness, interpersonal violence)	<ul style="list-style-type: none"> <li>● Maintain social connectedness through virtual and phone communications or while outdoors (eg, in nature)</li> <li>● Engage in meaningful, value-driven activities that promote “pulling together” as communities (eg, remote volunteering, helping more vulnerable community members)</li> <li>● Ensure that COVID-19 survivors are not stigmatized or discriminated against</li> <li>● Disseminate information regarding free web-based applications to cope with interpersonal stress (eg, AIMS for Anger Management, Mood Coach, Parenting2Go, Stair Coach<sup>a</sup>)</li> <li>● Messaging about interpersonal violence resources within rural communities and nationally (eg, National Domestic Violence Hotline, National Sexual Assault Telephone Hotline, Childhelp National Child Abuse Hotline) and actions (eg, safety planning)</li> <li>● Disseminate resources and support to facilitate parental coping and appropriate disciplinary strategies during periods of stress</li> <li>● Increase interpersonal violence screening by healthcare providers</li> </ul>
Increased access to firearms when acute suicide risk may be elevated	<ul style="list-style-type: none"> <li>● Education regarding safe firearm storage practices and potential risks for new firearm owners</li> <li>● Public health messaging that communicates the risks of firearm access when suicide risk is elevated, as well as the benefits of safe firearm storage (eg, locked, unloaded)</li> <li>● Increase options for temporarily reducing firearm access for individuals at elevated risk for suicide (eg, adding and communicating options for safe temporary storage in rural communities)</li> <li>● Ensure that healthcare providers are assessing firearm access among individuals at increased risk for suicide</li> <li>● Increase access to free firearm locks and safes</li> </ul>
Onset or exacerbation of mental health symptoms due to COVID-19 related concerns and distancing, while access to mental healthcare may be decreased	<ul style="list-style-type: none"> <li>● Destigmatization of mental health care (eg, public health messaging about the importance)</li> <li>● Public health messaging regarding how to obtain mental health care (eg, telehealth) and crisis support (eg, national and local crisis lines)</li> <li>● Virtual or telehealth individual or group sessions</li> <li>● Disseminate free web-based applications to facilitate psychoeducation and treatment (eg, Life Armor), symptom management (eg, PTSD Coach, CBT-i Coach<sup>a</sup>), stress reduction and coping (eg, Mindfulness Coach, Breathe2Relax, Moving Forward), and suicide prevention (eg, Virtual Hope Box, Safety Plan Mobile App).</li> </ul>

<sup>a</sup>Intended to be used in conjunction with professional treatment. CBT-I, cognitive behavioral therapy for insomnia.

as childhood abuse or intimate partner violence),<sup>20,21</sup> which is associated with increased risk for suicide.<sup>22</sup> This is particularly concerning for those living in rural communities, where intimate partner violence tends to be more severe, chronic, and is associated with worse health and psychosocial outcomes,<sup>23</sup> compared to urban settings. Unfortunately, resources for addressing interpersonal violence in rural communities are more limited, with more barriers to help-seeking (eg, confidentiality concerns, local politics, distance), greater areas of need for specific services,<sup>24</sup> and cultural norms that can deter disclosure and help-seeking.<sup>23</sup>

Thus, it will be critical to address these interpersonal risk factors for suicide in rural communities during and following the COVID-19 pandemic. Finding alternate ways to decrease social isolation and maintain *connectedness* and *belongingness* while adhering to physical distancing is paramount. Although telephone and virtual communication can be used to maintain social connectedness, many individuals in rural communities lack reliable access to high-speed Internet.<sup>25</sup> Consequently, accomplishing and maintaining social interaction in rural communities may require nuanced and creative solutions. One potential strategy involves engaging in social

interactions outdoors while adhering to physical distancing guidelines, which may be more feasible in rural areas since they often maintain open space. In addition to potentially increasing social connectedness, being outdoors also may help to bolster mood<sup>26</sup> and promote mental health.<sup>27,28</sup> Rural communities could also set up means of identifying individuals who are vulnerable or struggling to ensure that they feel connected and cared for.

Helping individuals to derive a sense of purpose is also critical to offsetting the *perceived burdensomeness* that can accompany major financial stressors and health concerns.<sup>17,29,30</sup> “Pulling together” by collectively engaging into meaningful, value-driven activity during crises can attenuate the impact of *perceived burdensomeness*, while concurrently increasing *belongingness*.<sup>31</sup> It can also promote resilience,<sup>32</sup> and individual and collective sense of control.<sup>30</sup> Moreover, as individuals experience a greater sense of purpose, meaning, and connectedness, they are more likely to experience decreased risk for suicidal ideation and suicidal self-directed violence.<sup>32-34</sup> Thus, providing rural communities with the resources to come together to increase sense of purpose, while simultaneously protecting the most vulnerable community members from infection, is integral. One option for beginning to address this is for rural communities to create opportunities for remote volunteering (eg, fundraising or providing supplies for individuals who are unable to leave their homes) through local organizations or grassroots efforts. Of note, it may be particularly important for communities to come up with specific solutions themselves, both to increase efficacy in doing so as well as to increase feasibility and sustainability of different community-based efforts.

To address interpersonal violence, rural communities can disseminate information regarding interpersonal violence resources, such as toll-free hotlines, chat lines, and community-based clinics and services. Rural providers can also increase efforts to screen their patients for interpersonal violence and ensure that those with histories of interpersonal violence have safety plans available. Beginning a conversation about interpersonal violence as a community also may be key to decreasing stigma and increasing the likelihood that rural community members who experience interpersonal violence will seek help for these experiences, whether formally or through other community supports (eg, family, friends).

## Access to Firearms

Another key risk factor for suicide that may be exacerbated during the COVID-19 pandemic involves *access to firearms*,<sup>35,36</sup> the leading means of suicide in

rural communities.<sup>37</sup> Individuals in rural communities are more likely to own firearms, including multiple firearms.<sup>38</sup> Recent media reports have described individuals acquiring firearms and ammunition as a result of fears regarding COVID-19.<sup>39</sup> Thus, previous firearm owners may have obtained additional firearms and ammunition, while the number of firearm owners overall has likely increased. This is particularly concerning given the stressful nature of the current pandemic, including exacerbation of key risk factors and potential decrease in protective factors.

Thus, another key consideration for preventing suicide in rural communities during the COVID-19 pandemic entails increasing *safe firearm-related behaviors*. This would align with national suicide prevention recommendations more broadly, which include reducing access to lethal means, such as firearms, for populations at increased suicide risk or during periods of elevated risk for suicide.<sup>40,41</sup> Moreover, this is a critical time to ensure that knowledge regarding the risk associated with firearm access is disseminated to rural communities. It may be particularly important to implement public health messaging that communicates the benefits associated with safe firearm storage (eg, locked, unloaded),<sup>42</sup> as well as options for temporarily reducing firearm access for individuals at elevated risk for suicide.<sup>43,44</sup>

## Mental Health and Access to Care

Finally, mental health symptoms and diagnoses are well-established risk factors for suicide,<sup>45</sup> and there is the potential for onset or exacerbation of mental health symptoms during the COVID-19 pandemic—whether due to fear and anxiety regarding infection, or the prolonged physical distancing, disruptions, and uncertainty created by this unprecedented and potentially lethal pandemic.<sup>46-49</sup> This may disproportionately affect individuals in rural communities, who already experience increased stigma regarding mental health, suicide, and help-seeking.<sup>50-52</sup> Furthermore, due to existing shortages of mental health providers in rural communities, many individuals in rural areas rely upon primary care providers to provide mental health screening, resources, and treatment.<sup>53-55</sup> However, concerns about infection and triaging the most medically severe patients during the COVID-19 outbreak may further strain primary care providers’ ability to provide such services. Ensuring that individuals in rural communities have access to mental health care during and following the COVID-19 pandemic will be a challenge.

Addressing this may include increasing dissemination of public health messaging regarding avenues for

obtaining mental health care (eg, telehealth) and crisis support (eg, national and local crisis lines) in rural communities, as well as continued destigmatization of mental health care. Family and friends can encourage one another to seek treatment if experiencing emotional distress and can share their own experiences with seeking help. Increasing dissemination of free web-based applications may also help to facilitate coping for a broad range of concerns. In addition, this is likely a particularly important time for rural health care providers to screen for mental health symptoms (eg, depression, anxiety, posttraumatic stress disorder, substance use). For rural patients most at risk, ensuring continued access to mental health care (eg, telehealth) will be key.

In sum, individuals in rural communities may be disproportionately impacted by the COVID-19 pandemic.<sup>56</sup> Many of these risk factors for suicide can interact with one another to further compound risk. Nonetheless, many of these solutions also may be synergistic in potentially mitigating these risks. Ensuring that rural communities are adequately equipped to prevent suicide while managing the spread and impact of COVID-19 is critical.

## Endnote

- i. While the term “social distancing” has been used to describe social isolation measures to limit the spread of COVID-19, we use the term “physical distancing” instead to describe recommended physical barriers (eg, sheltering in place and maintaining at least 6 feet of distance from nonhousehold members).

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