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Role of Primary Care in Suicide Prevention During the COVID-19 Pandemic

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**Abstract**

Primary care providers have an important role in suicide prevention, knowing that among people who die by suicide, 83% have visited a primary care provider in the prior year, and 50% have visited that provider within 30 days of their death, rather than a psychiatrist. The psychosocial impact of the coronavirus disease 2019 pandemic poses increased risk for suicide and other mental health disorders for months and years ahead. This article focuses on screening tools, identification of the potentially suicidal patient in the primary care setting, and a specific focus on suicide prevention during widespread, devastating events, such as a pandemic.

Primary care providers (PCPs) have an important role in suicide prevention, knowing that among people who die by suicide, 83% have visited a PCP in the prior year, and 50% have visited that provider within 30 days of their death, rather than a psychiatrist. As the 10th leading cause of death in the United States, suicide occurs every 12 minutes, and for every completed suicide, there are 25 attempts. Since the end of March 2020, the motivation for attempts and completion of suicidal acts seems to have shifted and has become a cause for concern. As the coronavirus disease 2019 (COVID-19) pandemic has swept across the US, various news outlets report suicides related to COVID-19, and mental health experts predict that an already high suicide rate will rise 1.6% for every 1% increase in unemployment.

A large database epidemiologic study of Japanese individuals from 2007 to 2009 identified health, depression, and economic problems as the top 3 motivating factors for suicide. Hopelessness associated with depression was the leading motivation for completed suicide. Physical illness ranked second, with economic hardship being a close third. This study underscores the increasing numbers of recent suicides attributed to the COVID-19 pandemic.

**History of Socioeconomic Hardship and Link to Suicide**

Several international studies highlighted the association of rising suicide rates with financial hardship and unemployment during the worldwide economic recession of 2008. Since 2009, the severe economic crisis in Greece identified lower income as a significant risk factor for suicide. In Spain, socioeconomic factors were linked with suicide and mental health needs between 2005 and 2010. Recession, unemployment, and financial hardship in the US increased mental health needs of populations during the worldwide economic recession of 2008. Given this historical data, along with economists’ current predictions of another worldwide economic recession as a result of COVID-19, it seems prudent to anticipate similar increased trends regarding suicides and attempted suicides.

**Vulnerable Populations, Mental Health, and Suicide Assessment during a Public Emergency**

Suicide assessment should be part of a routine evaluation for patients with mental health issues, not only in behavioral health practice but also in primary care. In a time of mass crisis, such as economic recession, natural or manmade disaster, or illness pandemic, suicide risk awareness should be heightened. Determining who might be the most vulnerable to the health and subsequent economic crisis is critical. Older individuals, those with lower immunity status, individuals who live alone, and individuals who are suddenly unemployed may be at greater risk for suicide.

Workers on the “front lines” during a pandemic are a category of people who are at a higher risk for suicidal ideation that can be easily overlooked as being high risk. These would include not only health care workers and first responders but also workers who are suddenly in high demand, such as those working in grocery stores, covering the media, delivering goods, or employed in the government or financial sectors. Patients with preexisting mental health diagnoses should be placed in a higher risk category as well.
Increased the following year, suggesting a cause for concern.16

During a pandemic like COVID-19, mandated self-isolation and sequestering can have a profound effect on mental health. People with chronic, debilitating illnesses and those with preexisting mental health diagnoses have symptoms that often worsen under isolative conditions.14 Isolation can have extreme adverse effects on mental health, especially on those with major depressive disorder and schizophrenia, which can cause worsening of symptoms that can lead to suicidal ideation.14 However, social isolation can affect even those without preexisting mental health conditions. Social isolation often leads to loneliness and a decreased ability to cope. Subsequently, loneliness and isolation can also increase susceptibility to illness.14 People living alone or those facing increased isolative conditions are at a higher risk for despair, hopelessness, and suicide.

Effects from Isolation

In 2016, the rate of hospitalizations for substance use disorders in New Orleans increased after Hurricane Katrina.15 After the 9/11 attack, substance use of people living in the New York area notably increased. The Patient Health Questionnaire-2 (PHQ-2) is a 2-item screening tool for depression widely used in primary care practice settings. It includes the first 2 items of the Patient Health Questionnaire-9 (PHQ-9), A positive result on the PHQ-2 should prompt the interviewer to administer the full PHQ-9, a 9-item screening tool (Table 2) to identify the severity of depression and possible suicidal ideation.

Interpretation: The PHQ-2 total score is acquired by adding the score obtained from the first 2 items of the PHQ-9. If the score is 3 or greater, a major depressive disorder is likely. Patients who screen positive should be further evaluated with the PHQ-9.

Practice Guidelines for the Assessment of Suicide Risk

The American Psychiatric Association Practice Guidelines recommend that a suicide assessment include the following:

- Inquiry regarding suicidal ideation, plan, and intent
- History of prior suicidal ideation, plan, and past attempts
- History of nonsuicidal self-injury
- Assessment of current mood, symptoms of anxiety, feelings of hopelessness, and presence of impulsivity (Table 1)
- History of psychiatric hospitalization and emergency department visits for psychiatric complaints
- History of substance use disorder or change in use of substances (Table 1)
- Screening for stressors, including the current pandemic (Table 1)

Examples of ways to phrase questions relating to suicidal ideation, plan, and intent

Assessing for suicidal ideation

- Have you had thoughts that you would like to go to sleep and not wake up? (Table 1)
- Have you had thoughts of ending your life? (Table 1)
- When did these suicidal thoughts start?
- How often do you have these suicidal thoughts?

Assessing for suicidal plan

- Do you have a plan for how you would end your life? (Table 1)
- What is that plan? (Table 1)
- Do you have access to the means to do it? (Table 1)
- Where would you do it? (Table 1)
- When would you do it? (Table 1)

Assessing for suicidal intent

- Are you feeling like you are a burden? (Table 1)
- What would ending your life accomplish?
- What have you done to prepare for your plan? (Table 1)
- Do you think that your plan would work?
- Is there any reason to help stop you from implementing this plan?

Screening Tools

Patient Health Questionnaires 2 and 9

The Patient Health Questionnaire-2 (PHQ-2) is a 2-item screening tool for depression widely used in primary care practice settings. It includes the first 2 items of the Patient Health Questionnaire-9 (PHQ-9). A positive result on the PHQ-2 should prompt the interviewer to administer the full PHQ-9, a 9-item screening tool (Table 2) to identify the severity of depression and possible suicidal ideation.

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Interpretation: The PHQ-9 total score is acquired by adding the score obtained from each answer. Total scores of 5, 10, 15, and 20 represent cut points for mild, moderate, moderately

### Table 1

Twelve Suicide Warning Signs*

|   |   |
|---|---|
| 1. | Feeling like a burden |
| 2. | Being isolated |
| 3. | Increased anxiety |
| 4. | Feeling trapped or in unbearable pain |
| 5. | Increased substance use |
| 6. | Looking for a way to access lethal means |
| 7. | Increased anger or rage |
| 8. | Extreme mood swings |
| 9. | Expressing hopelessness |
| 10. | Sleeping too little or too much |
| 11. | Talking or posting about wanting to die |
| 12. | Making plans for suicide |

* CDC, 2019

Additional populations at higher risk include those with low socioeconomic status, homeless individuals, and minorities, because health disparities are exacerbated during periods of economic and social upheaval as well as after natural or manmade disasters. Health disparities, such as obesity, hypertension, and diabetes mellitus, which are linked to racial and socioeconomic status, also seem to have a link to the COVID-19 pandemic, given that they were reported in 89.3% of a population sample in a Centers for Disease Control and Prevention (CDC) survey.13 Also, the rates of COVID-19 occurred in 55% of the nonwhite population, according to this same survey by the CDC, which was taken from a sample of 14 states and represented approximately 10% of the US population.13

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### Implications of a Pandemic or Natural Disaster in Substance Use Disorder Populations

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severe, and severe depression, respectively. Question 9 is a single screening question regarding suicide risk. A patient who answers 1 to 3 to this question requires further suicide screening assessment.21

Although the PHQ-9 and PHQ-2 have consistently demonstrated sound psychometric properties for validity and reliability in screening for depression,20,21 the PHQ-2 does not directly assess suicidal ideation.22 Recent evaluation of the PHQ-9 for suicide risk assessment demonstrated 0.84 specificity and 0.69 sensitivity, indicating that it can be useful in primary care settings to identify patients at risk for suicide.23 However, denial of suicidal ideation on the PHQ-9 warrants additional probing questions if other suicide risk factors are present.

Probing Questions

The PHQ-2 and PHQ-9 are tools that are used to assess symptoms over the previous 2-week period.20,21 In addition to the PHQ-2 and the PHQ-9, probing questions could also be used during a pandemic to determine the extent that stressors have impacted the patient’s current severity of depressive symptoms. Protective factors, such as social support systems, are essential to assess. The patient’s motivations for suicide or their “triggers” may not always include the typical factors, such as seeking revenge, escaping emotional or physical pain, or having feelings of loneliness, purposelessness, self-hatred, or hopelessness.

- Do you feel that the pandemic has affected you emotionally or mentally?
- Have you or your family been impacted financially by the pandemic? Have you lost your job or have your hours been cut back? Are you worried about finances?
- Do you have to work more because of the pandemic?
- Have you or your family been exposed to the virus?
- Are you worried about getting sick? (anticipatory anxiety)
- Do you live alone? Have you been more isolated because of the pandemic?

Table 2

| Patient Health Questionnaire-9 |
|--------------------------------|
| **Over the last 2 weeks**, how often have you been bothered by the following problems? |
| 1. Little interest or pleasure in doing things?a |
| Not at all = 0 |
| Several days = 1 |
| More than half the days = 2 |
| Nearly every day = 3 |
| 2. Feeling down, depressed, or hopeless?a |
| Not at all = 0 |
| Several days = 1 |
| More than half the days = 2 |
| Nearly every day = 3 |
| 3. Trouble falling asleep, staying asleep, or sleeping too much? |
| Not at all = 0 |
| Several days = 1 |
| More than half the days = 2 |
| Nearly every day = 3 |
| 4. Feeling tired or having little energy? |
| Not at all = 0 |
| Several days = 1 |
| More than half the days = 2 |
| Nearly every day = 3 |
| 5. Poor appetite or overeating? |
| Not at all = 0 |
| Several days = 1 |
| More than half the days = 2 |
| Nearly every day = 3 |
| 6. Feeling bad about yourself—or that you’re a failure or have let yourself or your family down? |
| Not at all = 0 |
| Several days = 1 |
| More than half the days = 2 |
| Nearly every day = 3 |
| 7. Trouble concentrating on things, such as reading the newspaper or watching television? |
| Not at all = 0 |
| Several days = 1 |
| More than half the days = 2 |
| Nearly every day = 3 |
| 8. Moving or speaking so slowly that other people have noticed? Or, the opposite? Being so fidgety or restless that you have been moving around a lot more than usual? |
| Not at all = 0 |
| Several days = 1 |
| More than half the days = 2 |
| Nearly every day = 3 |
| 9. Thoughts that you would be better off dead or of hurting yourself in some way? |
| Not at all = 0 |
| Several days = 1 |
| More than half the days = 2 |
| Nearly every day = 3 |

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- Do you feel that the pandemic has affected you emotionally or mentally?
- Have you or your family been impacted financially by the pandemic? Have you lost your job or have your hours been cut back? Are you worried about finances?
- Do you have to work more because of the pandemic?
- Have you or your family been exposed to the virus?
- Are you worried about getting sick? (anticipatory anxiety)
- Do you live alone? Have you been more isolated because of the pandemic?
- How have you been spending your free time?
- Has your alcohol or drug use increased?
- Have you lost anyone close to you?
- Have you or your support system been otherwise affected by the pandemic?
Collaboration with the patient to prevent suicide. The concept of hopelessness, such as hopelessness, will help the clinician address the issue of life.

Further exploration in the therapeutic discussion and conveys the genuine concern and acknowledge how difficult the patient's situation is. The focus of this conversation provides an opportunity for patients to feel highly anxious, overwhelmed, and hopeless.

Emotionally Connecting with Suicidal Patients

Brief, therapeutic interactions are useful for long-term suicide prevention. Interventions directed toward the symptoms of suicide, such as hopelessness, will help the clinician address the issue in collaboration with the patient to prevent suicide. The concept of hopelessness has been widely demonstrated in the literature to have a crucial impact on suicidality. Focusing therapeutic interventions on the concept of hopelessness will allow the nurse practitioner (NP) to emotionally connect with patients who are contemplating suicide and allow the NP the opportunity to convey genuine concern and acknowledge how difficult the patient's situation is. The focus of this conversation provides an opportunity for further exploration in the therapeutic discussion and conveys the NP's desire to help the patient achieve a more positive perspective on life.

Risk and Protective Factors

Below is a list of risk factors and protective factors (Table 3). While having 1 or more risk factors increases the likelihood of suicide, protective factors may help people deal more effectively with stressful events and often mitigate or even eliminate the risk of suicide.

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Table 3
Suicide Risk and Protective Factors

| Risk Factors:                                      |
|--------------------------------------------------|
| • Family history of suicide                      |
| • Family history of child abuse/neglect          |
| • Previous suicide attempt(s)                    |
| • History of mental disorders, particularly clinical depression |
| • History of alcohol and substance use           |
| • Feelings of hopelessness                        |
| • Impulsive or aggressive tendencies             |
| • Cultural and religious beliefs (eg, belief that suicide is noble resolution of a personal dilemma) |
| • Local epidemics of suicide                      |
| • Isolation                                       |
| • Barriers to accessing mental health treatment  |
| • Loss (relational, social, work, or financial)   |
| • Socioeconomic disadvantages                    |
| • Physical illness or disability                 |
| • Easy access to lethal methods                   |
| • Unwillingness to seek help because of the stigma attached to mental health and substance use disorders or suicidal thoughts |

| Protective Factors:                               |
|--------------------------------------------------|
| • Stable support system within family and friend network |
| • Stable marriage or partnership                   |
| • Stable employment or income source              |
| • Safe housing                                     |
| • Skills in problem solving, conflict resolution, and nonviolent ways of handling disputes |
| • Cultural and religious beliefs that discourage suicide and support instincts for self-preservation |
| • Health insurance/access to care for mental, physical, and substance use disorders |
| • Support from ongoing medical and mental health care relationships |
| • Purposeful activities (hobbies, volunteer work)  |

Responses to the Pandemic

Anxiety, Fear, Hopelessness, and Lack of Resilience in the Face of Uncertainty

Anxiety and fear are normal emotional responses to perceived threats and the future unknown. The COVID-19 pandemic is an example of this, being a perceived threat and causing a great deal of uncertainty for what the future holds. While anxiety and stress are normal reactions to fearful experiences, frequently, many patients may lack resilience, a quality that allows some individuals to recover without permanent damage. This lack of resilience leads some patients to feel highly anxious, overwhelmed, and hopeless. Also, we need to be hypervigilant and screen every patient about suicidal thoughts and behaviors. Even patients who have never had mental health issues in the past are at a greater risk during a pandemic due to the level of stress we are all experiencing.

Ways to Help Patients Build Resilience

- Guide patients to accurate resources, such as the CDC, which will help to empower them. As NPs, we can guide our patients by giving them correct information about the pandemic. Many patients try to gather as much information as possible, often to local resources if further assistance is needed. If someone has talked to you about suicide, and you believe they are currently a threat to themselves or someone else but will not take your help, call 911.
- (800) 273-8255 …..1-800-273-TALK National Suicide Prevention Lifeline
- (877) 838-2838 …..1-800-Vet2Vet Veterans Peer Support Line
- (800) 784-2432 …..1-800-SUICIDA Spanish Speaking Suicide Hotline
- (877) 968-8454 …..1-800-YOUTHLINE Teen to Teen Peer Counseling Hotline
- (800) 472-3457 …..1-800-GRADHLP Grad Student Hotline
- (800) 773-6667 …..1-800-PDP-MOMS Post-partum depression hotline
- (366) 488-7386 …..The Trevor Project for LGBTQ
- (800) 799-4889 …..Options for deaf and hard of hearing
Accepting Uncertainty and Striving toward Resilience: Summary and Implications for the PCP

Our current COVID-19 crisis provides a unique challenge to health care workers, given its level of uncertainty. Experts are unable to provide information regarding when the crisis will abate, which further manifests the degree of ambiguity. Undoubtedly, this degree of uncertainty does not offer encouragement or hope to those grappling with the most with their mental health during these difficult times. However, as NPs, we can give these patients reassurance that they are not alone, and that fact, in particular, may provide some semblance of normalcy during their struggle.

Indeed, the stress of a pandemic can create the onset of a new diagnosis of mental illness, such as major depressive disorder or anxiety disorder. Identifying and treating a new onset of psychiatric illness, or one that is exacerbated by current events, would hopefully abort a subsequent suicidal event. Likewise, arming a patient with coping mechanisms that can increase resiliency is an essential therapeutic intervention that should not be marginalized. With projected increases in depression and suicidal behavior due to the COVID-19 pandemic, PCPs have a critical role in screening, identifying, and preventing suicide for their patients.27

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