

# Student pharmacist personal and work experiences with people displaying warning signs of suicidal ideation

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## Abstract

**Introduction:** Student pharmacists, in their roles as trainees, technicians, and peers, may interact with people displaying suicide warning signs. Providing suicide gatekeeping training to student pharmacists may prepare them to engage people at risk. Measuring the extent to which student pharmacists have encountered people displaying warning signs of suicide may help contextualize the potential importance of training student pharmacists in suicide gatekeeping. The objective was to describe student pharmacists' awareness of someone they know having attempted or died by suicide and whether they have heard statements suggesting suicide risk in their personal and work life.

**Methods:** An anonymous electronic survey was administered to 111 student pharmacists before engaging in question-persuade-refer training as part of their second-year pharmacy curriculum. Respondents were asked for demographics and if *Someone ever told you something concerning where you wondered if they were thinking about suicide* for both work and one's personal life. Descriptive statistics and chi-squared tests were used to compare items by gender.

**Results:** There were 111 responses to the survey for a 100% response rate. Concerning statements related to suicide were reported by 71.2% of respondents in their personal life and by 34.2% of students while at work. There were no differences based on gender.

**Discussion:** A significant proportion of student pharmacists have personal, peer, and professional exposure related to people with potential suicidal ideation. These findings emphasize the need for broad approaches for training students and pharmacists in suicide gatekeeping as a new public health role.

**Keywords:** pharmacy, student, suicide, prevention, gatekeeping, training

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## Introduction

In the United States, suicide was the 10th leading cause of death in 2015 and the second leading cause of death for individuals ages 10 to 34 in 2017.<sup>1,2</sup> The American Foundation for Suicide Prevention reports an estimated

1.4 million suicide attempts in 2017.<sup>1</sup> These statistics highlight suicide as a growing public health crisis.<sup>3</sup> Although tools and resources to reduce suicide attempts and completed suicides are available, there is a deficiency in collective action to prevent suicide and reduce suicide attempts through establishing effective interventions, allocating adequate funding, and implementing specific requirements for training professionals.<sup>4,5</sup>

There is a need for a more broad-based approach to suicide prevention that includes health care providers from all disciplines as well as the general community.

Studies<sup>6,7</sup> have shown those who die by suicide were 2.5 times more likely to have seen a primary care provider than a mental health provider in the month before their death. Pharmacists have been suggested as a potential health care practitioner in preventing suicides as pharmacists may also engage patients multiple times between physician visits.<sup>8-11</sup>

Students in pharmacy school also may be exposed to people with suicidal ideation in their roles as trainees and technicians.<sup>12</sup> Furthermore, student pharmacists experience high levels of stress, and they may have personal and peer experiences related to suicide, such as those in the general primary school and college student population.<sup>13-16</sup> It may be beneficial to begin training student pharmacists as well as licensed pharmacists in assessing suicide risk and referring people with suicidal ideation to resources.

Multiple countries, including the United States, have piloted various low-intensity, cross-disciplinary gatekeeper training to provide education in suicide prevention and intervention to health care providers and for students.<sup>4,17,18</sup> *Gatekeeper training* is a term used to refer to educational programs that support individuals who are not mental health practitioners to provide low-intensity interventions until a higher level of care can be provided to people experiencing mental health crises. Generally, gatekeeper training focuses on developing knowledge, attitudes, and skills to identify people at risk for suicide and make appropriate referrals.<sup>19</sup> A concern with gatekeeper training is that it may have limited reach across communities. Often, training sessions are only attended by those who elect to attend rather than as a universal training. Researchers argue that addressing suicidality is a community issue and engaging all community members in low-intensity interventions through gatekeeper training would expand the impact.<sup>20</sup>

Formative research that measures the extent to which student pharmacists have encountered people displaying warning signs of suicide either in their personal or professional lives may help contextualize the potential importance of training student pharmacists in suicide risk assessment and suicide prevention. Such research may address some of the gaps in the literature around the gatekeeper training of current and future health professionals and contribute to the implementation of evidence-based efforts to help prevent suicides.

## Objectives

The objective of this study was to describe student pharmacists' awareness of someone they know having attempted or died by suicide and whether they have

heard statements suggesting suicide risk in their personal and work life.

## Methods

This study used data from an electronic survey self-administered through the course management website to collect baseline responses from students who would be participating in question-persuade-refer (QPR) training later in the spring 2019 semester as part of an integrated pharmacotherapy course in psychiatry and neurology.<sup>21</sup> The QPR is a low-intensity gatekeeper training for suicide prevention that focuses on increasing knowledge about suicide and suicide warning signs, how to ask directly about suicidal ideation, and referring people at risk of suicide to resources.<sup>22</sup> These students were in their second year of a 4-year doctor of pharmacy curriculum at a public, state university in the Midwest. Students in this program had a 50-minute didactic session on suicide as part of an introductory course in health services the previous year.<sup>12</sup>

The survey was anonymous, and students were incentivized with a small amount of extra credit on an exam if more than 80% of the class completed the survey. Respondents could skip questions they preferred to not answer. The survey was accessible for a week at the end of February 2019 and took 5 to 10 minutes for most to complete. The survey was deemed not human subjects research by the University of Iowa Institutional Review Board.

The survey was designed by the lead author to address the study objectives and was not affiliated with QPR. The survey included basic demographics, including age, self-identified gender, and pharmacy work setting. The survey asked, *Do you know anyone close to you that have attempted or died by suicide?* with a dichotomous *yes/no* response. The survey also asked, *While working, has someone ever told you something concerning where you wondered if they were thinking about suicide?* and *In your personal life, has someone ever told you something concerning where you wondered if they were thinking about suicide?* These had response options of *yes, maybe/unsure*, and *no*. Students interpreted what they considered *at work*. We expected students would base their responses on their roles as paid interns or technicians, but they could also have referred to their experiences on clinical rotations as part of their experiential education.

Other items on the baseline survey assessed confidence and knowledge related to suicide. Descriptive statistics were calculated for the items. Chi-squared tests were conducted to test for differences in the primary outcomes of hearing concerning statements in personal life and

**TABLE:** Descriptive statistics of second-year student pharmacist personal and professional experiences with suicide (N = 111)

Item	Mean ± SD
Age	23.7 ± 3.38
	n (%)
Reported gender	
Female	72 (64.9)
Male	39 (35.1)
Do you know anyone close to you that have attempted or died by suicide?	
No	46 (41.4)
Yes	65 (58.6)
Pharmacy work experience (select all that apply)	
Community/retail	86 (77.5)
Hospital	38 (34.2)
None	8 (7.2)
Other pharmacy work	21 (18.9)
While working, has someone ever told you something concerning where you wondered if they were thinking about suicide?	
No	73 (65.8)
Maybe/unsure	24 (21.6)
Yes	14 (12.6)
In your personal life, has someone ever told you something concerning where you wondered if they were thinking about suicide?	
No	32 (28.8)
Maybe/unsure	17 (15.3)
Yes	62 (55.9)

work by self-reported gender at a significance level of  $P < .05$ . Analyses were conducted in R version 3.4.1 (R Core Team, Vienna, Austria).

## Results

There were 111 responses to the survey for a 100% response rate. Two thirds (64.9%) of respondents were female, and the average age was 23.7 (SD = 3.38; Table). The most common work experience reported was in a community/retail setting.

More than half of student pharmacists (58.6%) know someone who attempted or died by suicide and almost 3 quarters (71.2%) reported yes or maybe to having someone in their personal life say something concerning about which they wondered if they were thinking about suicide. Such concerning statements were also reported at work but to a lesser degree (*yes/maybe* = 34.2%). There were no significant bivariate differences in responses to these three items based on gender.

## Discussion

This census of second-year student pharmacists from a pharmacy college reported frequent experience with suicide and suicidal ideation as evident by 58.6% of students or their peers having attempted suicide or knowing someone who died by suicide. This rate is similar to a study of undergraduates in which 65% reported knowing at least one person who had attempted or died by suicide.<sup>23</sup>

Further, two-thirds of student pharmacists reported they had heard something concerning from someone in their personal life that suggested the person was having thoughts of suicide. Although Drum et al<sup>20</sup> reported that more than two-fifths of students with suicidal ideation did not tell anyone about their suicidal thoughts, those who did choose to seek help (52%) first reported to peers. Although the present questionnaire did not specify the setting or time in which the concerning statement was heard, it is reasonable to presume some of these interactions could have occurred since students began their pharmacy education, suggesting gatekeeper training has value in pharmacy education for peer-to-peer interventions.

Student pharmacists also reported hearing statements that were concerning or possibly concerning and indicate potential suicidal ideation in a work setting. Such work settings could include working as a technician or intern or possibly while on clinical rotation as part of their formal experiential education. To our knowledge, this is the first data on student health professionals reporting their interactions with people that may have suicidal ideation in their role as trainees. The survey, however, did not assess the specific nature of the comments or whether these concerning statements were heard in person or over the telephone. Anecdotally, some students shared experiences with members of the faculty in which someone from the community called the pharmacy to ask about the lethality of a drug, which may be a warning sign of suicidal ideation. Research has documented these types of calls being made to community pharmacies.<sup>24</sup>

People may display warning signs of suicidal ideation in the pharmacy setting because pharmacies are access points for prescription medications, which are often used in suicide attempts.<sup>25</sup> In addition to gatekeeper training, there may be a need to revisit new and refill prescription counseling to more specifically monitor the risk of suicide.<sup>26,27</sup> Some pharmacies already are using depression screeners in their practices, which may complement skills associated with gatekeeper training.<sup>28,29</sup> Pharmacists also should be aware of strategies for restricting access to lethal means, including safe storage of medications.<sup>1</sup>

Providing student pharmacists with gatekeeper training such as QPR, mental health first aid, and others could be beneficial given their exposure to people that may be displaying warning signs of suicidal ideation.<sup>24,30,31</sup> Studies<sup>34,32</sup> suggest people may need to be trained multiple times for challenging behaviors such as asking about suicide. Training pharmacy students, perhaps on multiple touch points, and then again as licensed pharmacists is likely appropriate.<sup>33</sup> Innovative approaches are needed, such as simulated practice and using people with lived experience with suicide attempts to decrease stigma associated with suicide.<sup>34,34,35</sup>

Because suicide is a sensitive topic, educators should also be cognizant of the potential for adverse reactions from people participating in gatekeeper training, especially when suicide and suicide attempts have happened with close relationships or themselves.<sup>36</sup> This may be compounded by the high levels of distress among students in the health professions, including pharmacy students.<sup>37</sup> Training in suicide prevention likely should be paired with other strategies to decrease distress among students, including efforts directed at self-care, depression screenings, and informational and destigmatizing programming within the educational structure.<sup>38,39</sup> Pharmacy educators should follow medicine and bolster consideration of the self-care needs of students within the curriculum and education and the availability of resources for helping students process the emotional tolls associated with suicidal behaviors.<sup>39-42</sup>

Widespread training of practicing pharmacists also may be useful. In the United States, only Washington state requires pharmacists to complete continuing education related to suicide prevention.<sup>43</sup> In addition to building knowledge, these training programs also can help decrease stigmatization and reduce social distance to people with mental health conditions.<sup>44,45</sup> There also is some evidence that gatekeeper training can help the trainees with their own rating of their mental health.<sup>45</sup>

This study has several limitations. The questions were self-reported, and it was left to the responder to judge whether a statement they heard suggested suicidal ideation and was, thus, subject to self-report bias. Also, participants could select *maybe*, which is open to interpretation concerning seriousness. The survey was cross-sectional and only included students from one cohort of one pharmacy program, which limits generalizability. Future work also should investigate the frequencies with which other health professionals and health profession students encounter people displaying warning signs of suicide. More research is needed on the link between personal and professional exposure to suicide and the distress, coping, and behaviors of health providers, including pharmacists.

## Conclusion

This study suggests a significant proportion of student pharmacists have experience with people who have attempted or died by suicide. Students also reported hearing statements in their personal and work lives about which they were concerned the person was thinking about suicide. These findings emphasize the need for broad approaches to training students and pharmacists in suicide gatekeeping as peers and serving in a public health role as pharmacists.

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