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Gatekeeper readiness in suicide risk prevention behavior in higher education nursing

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ABSTRACT

Received: 11 Sep. 2024 Accepted: 27 Nov. 2024 **Objectives:** The purpose of this study was to assess gatekeepers' readiness regarding their knowledge, skills, and preparedness for managing suicide risk prevention on campus.

Methods: This research employs a cross-sectional approach through a web-based survey to analyze the implementation of a digital-based suicide risk prevention program model. A random sample of 192 gatekeepers, who are involved in both educational and non-educational services, was selected. Inclusion criteria consisted of gatekeepers who consented to participate and were registered as academic members at Politeknik Kesehatan Surakarta. Data were collected via a survey using a self-developed and validated questionnaire/tool. Statistical analyses to assess gatekeepers' readiness for handling suicide risk included descriptive statistics, one-way ANOVA, and t-tests with a 95% significance level.

Results: A total of 192 gatekeepers completed the survey. The average scores for readiness in suicide threat prevention, post-trauma recovery ability, and victim evaluation were 5.00, 5.00, and 5.18, respectively. Overall, the surveyed gatekeepers were inadequately prepared for suicide risk prevention and did not fully understand their roles during both the preparedness phase for suicide prevention and post-trauma situations.

Conclusion: Gatekeepers' readiness and understanding of their role in responding to the threat of suicide is still low in Indonesia. Therefore, their capacity needs to be improved through ongoing training programs in the form of suicide management simulations and gatekeeper placement in campus areas with cross-sector collaboration with the government, private sector, and community.

Keywords: suicide prevention, gatekeeper, higher education

INTRODUCTION

Suicide is a serious psychiatric emergency within society. Suicide is a serious health problem and a leading cause of death worldwide [1]. In 2019, it was reported that around 703,000 people died by suicide, which means that every day more than 1,900 people choose to end their lives. Globally, suicide is the second leading cause of death among individuals aged 10 to 34 years and the fourth leading cause of death among those aged 35 to 44 years [2]. In Indonesia, cases of suicide among students are also rampant. The Indonesian health survey in 2023 reported that there were 0.25% of the population aged ≥ 15 years who had thoughts of ending their lives in Indonesia, with the highest prevalence by province in order being in Central Papua (1.64%), West Papua (0.57%), East Kalimantan (0.50%), West Java (0.45%), and DKI Jakarta (0.44%) [3]. Several universities in Indonesia have reported suicide incidents, such as the case at Bandung University, where a student died by suicide on 22 August 2021 [4]. In Bandung, first-year students were found to have a depression rate of 30.5%, 20% had serious thoughts of suicide, and 6% had attempted suicide by methods such as cutting, jumping from a height, and hanging themselves [5]. In 2019, there was a suicide incident of a student in the Surakarta University Dormitory. A mental health examination of students at the Surakarta Health Polytechnic explained that the high risk of suicide was 15.2%, especially first-year students.

MODESTUM

College students are a vulnerable population to suicidal ideation or attempt. College students are in a transition period from childhood to adulthood. Many risk factors contribute to college student suicide, including emotional distress, heterosexual relationships, homosexual relationships, smoking, drug abuse, hopelessness about the future, lack of interest in their discipline, and mental disorders. Risk factors for suicide among students are influenced by age, alexithymia, difficulty identifying emotions, motor impulsivity, and self-control. Problems that cause suicidal tendencies in students include health problems, psychological disorders, family factors, sexual harassment, juvenile delinquency, friendship problems, economic problems, academic difficulties, and personality traits [6].

Students who end their lives are not free from the various problems they face. The complexity of the challenges faced by

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students in the transition period can trigger a combination of factors that contribute to the emergence of suicidal thoughts. Students who have suicidal thoughts are generally caused by facing several problems, namely lack of interest in studying, difficulties in academic achievement, disappointing grades, broken families, relationship problems, financial problems, sadness, and disappointment with God. The high death rate from suicide among college students is one of the reasons why understanding suicidal ideation is crucial. Therefore, to overcome the death rate from suicide among college students is to suppress suicidal ideation so that it does not develop into a more worrying condition. A rational step that can be attempted to prevent the risk of suicide on campus is through gatekeeper empowerment.

Gatekeepers play a critical role in suicide risk prevention by reducing the vulnerability of suicidal ideation, attempts, and threats on campus. At the systemic level, gatekeepers are responsible for evaluating and controlling environmental safety, enhancing protocols, policies, and practices that align with zero-suicide goals, and training all staff involved. Gatekeepers are an important element and play a significant role in readiness to prevent suicide risk on campus. However. previous research results have shown that gatekeepers are often not sufficiently prepared to handle the responsibilities associated with suicide risk. Therefore, it is very important to conduct research on gatekeeper readiness in suicide risk preparedness and management. The purpose of this study was to assess gatekeeper readiness related to their knowledge, skills, and readiness in managing suicide risk prevention in higher education nursing in Indonesia.

METHODS

Study Design and Patient Selection

This study employed a cross-sectional approach using a web-based survey to analyze the implementation of a digital suicide risk prevention program model and its impact on knowledge, attitudes, and efficacy regarding suicide prevention in higher education institutions.

Sample and Setting

The sample consisted of 192 gatekeepers, randomly selected from educational and non-educational settings. Gatekeepers include faculty, school staff, and students trained to identify individuals at risk of suicide and refer them to appropriate gatekeepers or support services. All gatekeepers participated by completing an online questionnaire on suicide prevention preparedness, which was developed and validated by the researchers. Inclusion criteria comprised gatekeepers who agreed to participate and were registered as members of the academic community at Politeknik Kesehatan Surakarta, either in educational or non-educational capacities.

Research Instruments

Data were collected using a survey questionnaire adapted from the disaster preparedness evaluation tool [7] and further developed and validated by the researchers. This tool is designed to assess three stages of addressing suicide risk:

- (1) preparedness,
- (2) mitigation and response, and
- (3) evaluation.

Table 1. Demographic characteristics

Characteristics	n	%
Gender		
Man	87	45.3
Woman	105	54.7
Age		
17-20 years old	48	25.0
21-25 years old	34	17.7
26-32 years old	36	18.8
33-37 years old	18	9.4
38-44 years old	27	14.0
45-50 years old	22	11.5
51-56 years old	7	3.6
Education		
Senior high school	37	19.3
Diploma	105	54.7
Undergraduate (S1)	48	25.0
Graduate (S2)	2	1.0
Gatekeeper status		
School staff	37	19.3
Lecturer	7	3.6
Student	148	77.1
Emergency training experience		
Yes	121	63.0
No	71	37.0
Total	192	100

The tool consists of 46 favorable and unfavorable questions using a Likert scale ranging from 1 to 6. Scoring for favorable questions is, as follows: strongly agree is scored 6, agree is scored 5, neutral is scored 4, disagree is scored 3, srongly disagree is scored 2, and for unfavorable questions, scoring is reversed. The results of the instrument reliability test showed overall item correlation scores: knowledge = 0.552, skills = 0.521, and evaluation = 0.667. Cronbach's alpha internal consistency reliability for the research instrument was reported at a readiness level of 0.776, a response level of 0.756, and an evaluation level of 0.817.

Statistical Analysis

Statistical analysis for gatekeeper behaviors regarding readiness to handle suicide risk was conducted using descriptive statistics, one-way ANOVA, and t-tests, with a significance level set at 95%.

Ethical Considerations

To ensure ethical considerations, participants were informed that all survey information would be kept confidential and used solely for scientific purposes. Participation was voluntary, with no penalties for non-participation. The submission of completed surveys through the e-Sigap Budi application was considered consent.

RESULTS

Demographic Characteristics

Table 1 shows that out of 192 respondents, the majority of gatekeepers were female, which was 54.7%, while the remaining 45.3% were male. The largest age group (25%) was between 17 and 20 years old. In terms of education, most gatekeepers had a diploma, which was 54.7% of the sample. In addition, most (63%) of gatekeepers had previously attended emergency response training.

Table 2. Differences in preventive behavior against suicide threats based on age, education, and years of work experience

Field	SS	df	MS	F	Sig.
Age * knowledge					
Between groups	770.494	6	128.416	.600	.730
Within groups	39,614.173	185	214.131		
Total	40,384.667	191			
*Skills	568.738	6	94.790	.744	.615
Between groups	23,564.382	185	127.375		
Within groups	24,133.120	191			
Total	103.001	6	17.167	1.061	.388
*Evaluation					
Between groups	2,992.916	185	16.178	.600	.730
Within groups	3,095.917	191			
Total	770.494	6	128.416	.600	.730
Education * knowledge					
Between groups	82.655	3	27.552	.129	.943
Within groups	40,302.012	188	214.372		
Total	40,384.667	191			
*Skills	66.768	3	22.256	.174	.914
Between groups	24,066.352	188	128.013		
Within groups	24,133.120	191			
Total	17.582	3	5.861	.358	.783
*Evaluation					
Between groups	3,078.335	188	16.374		
Within groups	3,095.917	191			
Total	82.655	3	27.552	.129	.943
Training experience * kn	owledge				
Between groups	863.673	1	863.673	4.152	.043
Within groups	39,520.993	190	208.005		
Total	40,384.667	191			
*Skills	49.875	1	49.875	.393	.531
Between groups	24,083.244	190	126.754		
Within groups	24,133.120	191			
Total	2.654	1	2.654	.163	.687
*Evaluation	3,093.263	190	16.280		
Between groups	3,095.917	191			
Within groups	863.673	1	863.673	4.152	.043
Total	39,520.993	190	208.005		

Note. SS: Sum of sagures & MS: Mean square

Differences in Gatekeeper Perceptions of Preparedness Based on Demographics

Based on the results of the one-way ANOVA test shown in **Table 2**, it can be explained that experience in emergency

Table 3. t-test results: Differences in gatekeepers' preventive behavior on suicide risk preparedness based on experience in emergency training

Field	F	SD	t	р
Knowledge	0.093	126.34	2.038	0.043
Skills	0.188	75.38	0.627	0.531
Evaluation	0.151	31.21	0.404	0.687

Note. SD: Standard deviation

Table 4. Correlation test results between gatekeeper attitude items on preparedness for suicide threats (Likert scale range 1-6)

Attitudes	Mean	Variance	SD	Item (n)	Skor
Knowledge	125.17	211.438	14.541	25	0.552
Skills	75.10	76.360	11.241	15	0.521
Evaluation	31.15	34.818	4.026	6	0.667

Note. SD: Standard deviation

training shows a significant difference in knowledge about suicide.

Differences in Preventive Behavior Regarding Suicide Threats Based on Emergency Training Experience

As shown in **Table 3**, the gatekeepers' experience in emergency training did not demonstrate a significant difference in their preparedness for preventive behavior in the areas of skills (ρ = 0.531) and evaluation (ρ = 0.687). However, there was a significant difference in knowledge (ρ = 0.043) based on gatekeepers' experience with emergency training.

Preventive Behavior

Based on **Table 4**, the reliability test results for gatekeeper behavior show the overall item correlation scores: knowledge = 0.552, skills = 0.521, and evaluation = 0.667.

Preparedness Level

Based on **Table 5**, the results indicate that out of 25 items regarding preparedness for suicide threats, which are divided into three subcategories–knowledge, disaster skills, and family preparedness–the average score on the Likert scale (ranging from 1 to 6, where the lowest score is 1, and the highest is 6) is 5.00. The item correlation for this section is 0.20 (Cronbach's alpha = 0.776), demonstrating acceptable internal consistency.

Table 5. Correlation test results between items on preventive behavior for suicide threat management (Likert scale range 1-6)

Va	riable	М	SD
Kr	nowledge about suicide risk		
1	I am interested in participating in training sessions related to preparedness for handling clients at risk of suicide, particularly those that directly relate to situations within my community.	5.65	0.772
2	I am intrigued by the courses on preparedness and suicide risk prevention offered in various settings, such as workplaces, universities, or communities.	5.67	0.732
3	I find that published research findings on suicide risk prevention preparedness are easily comprehensible.	5.12	1.034
4	I am aware of the limitations of my knowledge, skills, and authority as a gatekeeper in disaster situations, and I recognize when I exceed these limitations.	5.30	0.987
5	Finding relevant information on suicide risk prevention preparedness related to the needs of my surrounding community is a barrier to my level of preparedness.	2.33	1.459
6	I pay attention to the potential risks of suicide in my community (e.g., earthquakes, floods, terrorism).	5.26	0.995
7	I believe that in the event of a suicide risk situation, there is adequate support from local officials at the university or hospital level.	5.36	1.014
8	I know where to find relevant research or information related to preparedness and suicide risk prevention to address gaps in my knowledge.	4.96	1.191
9	I maintain a contact list of individuals in the medical or health fields at my workplace. I am aware of referral contacts in the event of a suicide risk situation (e.g., health departments).	5.21	0.916
10	I find that published research findings on preparedness and suicide risk prevention are easily accessible.	4.97	1.171

Table 5 (Continued). Correlation test results between items on preventive behavior for suicide threat management (Likert scale range 1-6)

Vai	riable	М	SD
11	I regularly participate in educational activities such as continuing education classes, seminars, or conferences related to suicide risk prevention preparedness.	4.94	1.287
12	I understand the local emergency response system for suicide risks.	5.24	0.895
13	I know whom to contact (chain of command) in suicide risk situations in my community.	5.19	1.057
14	I read journal articles related to suicide risk prevention preparedness.	5.04	1.109
15	I actively contribute to developing guidelines and emergency response plans for suicide-risk clients or advocating for advancements at the local or national level.	4.67	1.407
16	I have participated in the development of emergency response plans for suicide-risk clients in my community.	4.76	1.416
Sui	cide prevention skills		
1	I understand the triage principles used in suicide prevention situations.	5.15	1.078
2	I regularly participate in simulations or drills for suicide risk prevention at my workplace (e.g., university, clinic, hospital).	5.06	0.939
3	I believe I am prepared for suicide risk prevention.	5.05	1.103
4	In the event of a client at risk of suicide, I know how to use personal protective equipment.	5.46	1.022
5	I would be trusted as a key leadership figure in my community for suicide risk prevention situations.	4.93	1.207
6	In the event of a client at risk of suicide, I know how to perform isolation procedures to minimize exposure risks within the community.	4.93	1.217
7	In the event of a client at risk of suicide, I know how to conduct decontamination procedures.	4.91	1.192
Far	nily preparedness for suicide risk		
1	I have a personal/family emergency response plan for situations involving a client at risk of suicide.	5.02	1.148
2	I have an agreement with loved ones and family members on how to execute the personal/family emergency response plan.	4.99	1.300
Not	e. M: Mean; SD: Standard deviation; & n = 192		

Table 6. Gatekeeper response ability in suicide prevention (Likert scale range 1-6)

Var	iable	М	SD
Spe	ecific knowledge response		
1	I am capable of describing my role in addressing disaster phases within the contexts of the workplace, public settings, media, and personal contacts.	5.03	1.232
2	I understand agencies' logistics and organizational roles at the local, provincial, and central levels during emergency response situations.	4.91	1.285
3	I am knowledgeable about psychological interventions, behavioral therapy, cognitive strategies, support groups, and debriefing for patients experiencing emotional and physical trauma.	4.78	1.263
Pat	ient management during the response process (to suicide)		
1	I am adept at managing the common symptoms and reactions of victims in suicide situations, including affective, behavioral, cognitive, and physical responses.	4.97	1.208
2	I am confident in providing education on stress and abnormal disorders related to trauma to patients.	4.99	1.241
3	I am able to identify indicators of mass exposure, as evidenced by groups of patients exhibiting similar symptoms.	5.10	1.124
4	As a gatekeeper, I am confident in my ability to serve as a manager or coordinator of rescue efforts.	5.05	1.256
5	I am confident in my capability to independently care for patients without physician supervision in suicide-threat situations.	5.02	1.302
6	I am confident in performing triage duties and establishing temporary clinics in suicide-threat situations.	5.08	1.186
7	As a gatekeeper, I am confident in my skills as a direct and specialized service provider in suicide-threat situations.	5.03	1.118
8	I am confident in executing emergency response plans, evacuation procedures, and other similar functions.	4.93	1.178
9	As a gatekeeper, I am highly confident in my abilities as a member of the decontamination team.	4.93	1.164
10	I understand the primary categories (A, B, C), their signs and symptoms, and effective prevention strategies.	5.09	1.157
11	I am confident in recognizing various assessment deviations indicating potential suicide risk exposure.	4.98	1.243
12	In the event of a suicide threat, I know how to record health histories and conduct focused health assessments, particularly concerning the agents involved.	5.20	0.901

Note. M: Mean; SD: Standard deviation; & n = 192

Response Level

Based on **Table 6**, the fifteen questions categorized into two subcategories–knowledge and patient management–have an average score of 2.53 on the Likert scale (ranging from 1 to 6). The item correlation for this section is 5.00 (Cronbach's alpha = 0.756), indicating acceptable reliability.

Evaluation Level

Based on **Table 7**, from the six items of questions that consist of two subcategories–knowledge and management—the average score on the Likert scale (ranging from 1 to 6) is 5.17. The item correlation for this section is 0.56 (Cronbach's alpha = 0.817), indicating high reliability.

DISCUSSION

Demographic Characteristics

The results of this study indicate that neither the age nor educational background of gatekeepers significantly affects their preparedness for suicide prevention in terms of knowledge, skills, and evaluation. These findings are consistent with previous research, which suggests that demographic factors such as gender, age, and educational level do not significantly influence preparedness for suicide prevention [8]. Similarly, other studies have reported no negative correlation between age and suicide prevention behaviors [9].

Table 7. Gatekeeper evaluation level in facing disaster (Likert scale range 1-6)

Va	riable	М	SD
Kr	owledge of recovery		
1	I understand the scope of my role as a gatekeeper in a post-suicide threat situation.	5.24	.969
Re	covery management		
1	I am able to identify the signs and symptoms of acute stress disorder and post-traumatic stress disorder.	5.23	.833
2	I participate in peer assessments regarding skills related to readiness and response to suicide threats.	5.22	.902
3	I am confident in providing education related to skills and training for patients experiencing traumatic situations, enabling them to cope independently.	5.41	.733
4	I know how to conduct focused health assessments for post-traumatic stress disorder.	4.96	.978
	I am confident in managing (handling, evaluating) emotional outbursts in acute stress disorder or post-traumatic stress		
5	$disorder\ resulting\ from\ trauma\ through\ multidisciplinary\ approaches, such\ as\ guidance\ and\ follow-up,\ and\ I\ understand\ what$	5.07	.892
	to expect in the subsequent months.		

Note. M: Mean; SD: Standard deviation; & n = 192

Experience in emergency training was found to significantly impact knowledge, but not skills and evaluation, in suicide risk prevention preparedness. This finding aligns with previous research indicating that training experience for counselors and gatekeepers is related to improved knowledge and skills in suicide prevention readiness [10]. However, this result contrasts with earlier studies that reported inconsistent findings. Some research has indicated that younger and less experienced gatekeepers exhibit superior knowledge, self-efficacy, and attitudes toward suicide prevention [11].

Preparedness Level

From the 25 survey items related to suicide prevention preparedness, the questions were categorized into three subcategories:

- (1) knowledge of suicide (16 questions),
- (2) skills in handling suicide (7 questions), and
- (3) family preparedness (2 questions).

The average Likert scale score for these categories, ranging from 1 to 6, was 3.13. Among these, the highest score was recorded in the subcategory of knowledge about suicide, with an average score of 3.55 on the Likert scale. This positive knowledge score can be attributed to the gatekeepers' prior experience with emergency handling training at their workplaces. Additionally, gatekeepers had gained knowledge through their college education, including disaster management content integrated into the national health education curriculum, particularly at health polytechnics in Indonesia. Such educational experiences contribute to enhanced knowledge about preparedness for suicide threats. The survey results regarding knowledge about suicide align with previous research, indicating that inadequate knowledge of potential signs and risk factors of suicide negatively impacts health professionals' ability to identify at-risk patients [12]. Similar findings were reported in [13] that noted that suicide prevention training was associated with improved skills and confidence among health professionals in suicide prevention and intervention. Even brief training appears to positively influence the assessment of skills and confidence in health professionals. However, despite having received training, gatekeepers in Indonesia still feel inadequately prepared to handle actual suicide threat situations. This is due to the fact that many campus gatekeepers have not fully implemented their roles and that there is a lack of agreed-upon suicide prevention planning among key stakeholders, including primary health services, hospitals, and campus authorities.

Response Level

The second part of the survey assessed gatekeepers' response abilities, divided into two subcategories:

- (1) specific response knowledge (3 questions) and
- (2) patient management during response (12 questions).

The average scores for both subcategories were relatively low, below 3.00 on a Likert scale ranging from 1 to 6. This suggests that gatekeepers lack understanding of their roles during the emergency response phase, including organizational roles and coordination, self-confidence, and the ability to handle patients who have attempted suicide, as well as managing managerial roles effectively. Contributing factors include conflicts of interest at the workplace, infrequent training on preparedness and suicide prevention response offered by hospitals and educational institutions, and teaching methods for suicide management that may not align with realworld conditions. To enhance their response capabilities, it is recommended to conduct systematic and programmatic training on preparedness and response to suicide threats, involving cross-sectoral participation and simulated suicide scenarios. This approach aims to provide practical experience and insights into suicide management, thereby strengthening gatekeepers' confidence in assisting suicide victims.

The recommendations align with research in [14], which reported that gatekeeper training effectively provides knowledge, builds skills, and shapes the attitudes of trainees. However, significant work remains to sustain these attributes and gatekeeper referral patterns. Other studies have shown that gatekeeper training enhances individuals' knowledge, skills, and confidence in assisting those experiencing suicidal ideation and boosts positive beliefs about the efficacy of suicide prevention [15]. Gatekeeper training can influence individuals' knowledge, beliefs, and attitudes, which in turn can lead to effective intervention behaviors [14]. Furthermore, gatekeeper training improves individuals' knowledge, skills, and confidence in helping those with suicidal thoughts and enhances positive beliefs about the effectiveness of suicide prevention [15].

Evaluation Level

The third section of the survey focused on evaluating gatekeepers, consisting of two subcategories: questions about recovery knowledge (1 question) and questions about recovery management (5 questions). The responses to these questions yielded scores below 3.00. This indicates that gatekeepers are not yet fully aware of their roles in managing post-suicide conditions, identifying signs and symptoms, and addressing post-traumatic stress disorders. This finding is consistent with

previous research, which has shown that post-training gatekeepers did not demonstrate significant improvements in identifying individuals at risk of suicide or referring them to general practitioners [16].

CONCLUSION

The role of gatekeepers as first responders in preventing suicide threats, managing post-suicide attempts, and evaluating suicide prevention efforts is critical in reducing vulnerability and minimizing risk when faced with potential hazards. Gatekeepers' preparedness and understanding of their role in dealing with suicide threats is still low in Indonesia. Thus, their capacity in disaster preparedness, response, recovery, and evaluation needs to be improved through continuing education. Ongoing training in suicide management is essential for gatekeepers in Indonesian higher education institutions. Simulation-based training and strategic placement of gatekeepers on campus should be considered to improve preparedness. Also, the role of gatekeepers should be strengthened through ongoing training programs at universities and through cross-sector collaboration, including with government, private entities, and community organizations.

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Declaration of interest: No conflict of interest is declared by the authors.

Data sharing statement: Data supporting the findings and conclusions are available upon request from the corresponding author.

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