

Preventing Suicide Among Working-Age Adults: The Correlates of Help-Seeking Behavior

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Abstract

We aimed to identify the correlates with not seeking help among working-age adults with suicidal ideation. By adapting the integrated model of suicide help-seeking, we examined help-seeking behavior in the following 3 stages: problem recognition, decision to seek help, and sources of help. We used a sample of working-age adults between 26 and 64 years old, who reported suicidal ideation in the past year (N = 1414). Data were drawn from the 2011 and 2012 National Survey on Drug Use and Health, and multinomial logistic regression analyses were applied. Findings suggested that being male, being nonwhite, being employed full-time, having lower levels of general mental health needs, and not having health insurance were associated with not seeking help. Results also indicated how each factor was related in the help-seeking pathway. Strategies to help problem recognition can be effective in enhancing help-seeking behavior among men, racial/ethnic minorities, and those without serious clinical conditions. Help-seeking interventions for working-age adults with suicidal ideation should also consider that race/ethnic minorities and those with lower levels of functional impairment might rely on alternative sources of help, such as family, friends, and religious advisors.

Keywords

working-age adults, primary prevention, suicide, help-seeking

What do we already know about this topic?

The risk of suicide has been high among working-age adults, with the sharpest increase rate of suicide among middle-age group and less than half of the individuals with the risk seeking help.

How does your research contribute to the field?

This study identified risk factors for not seeking help specifically among working-age adults, including where in the help-seeking pathway each risk factor is related.

What are your research's implications toward theory, practice, or policy?

These data can be used to design primary prevention strategies to prevent suicide among working-age adults.

Worldwide, 1 million people die from suicide every year.¹ Suicide is the 10th leading cause of death overall² and the fourth leading cause of death among adults aged 18 to 65 years.³ Despite the high level of risk, individuals with suicidal ideation often do not seek help. In fact, there are indications that suicidal ideation hinders help-seeking through its negative psychological effects such as decreased problem-solving ability or increased pessimism or hopelessness.⁴ According to a systematic review on suicide help-seeking, less than half of individuals with suicide risk sought help, with the rate being 40% among adults aged 18 years and older.⁵

The growing attention on suicide among working-age adults is related to the trends in suicide rates among this age group. Suicide rate among the middle-age group (45-64

years) was the highest in 2014 (19.5 deaths per 100 000), with the sharpest increase rate of 6.3 percentage points, followed by an increase of 2.2 percentage points among adults

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aged between 25 and 44 years.⁶ Data also show that much of the growth in the suicide rate in the United States since 1999 can be attributed to men aged 35 to 64 years,⁷ further emphasizing the importance of suicide prevention in this age group. Suicide risk among working-age adults can be influenced by work-related factors, such as high work stress and adverse working conditions.⁸⁻¹¹ Furthermore, although recent studies using national data examined help-seeking for suicide risk among adults aged 18 and older,¹²⁻¹⁵ prior studies of young and older adults suggest that help-seeking behavior can differ across age subgroups among adults.^{5,16,17} It is necessary to examine help-seeking behavior among working-age adults to confirm that the evidence from prior literature on general adults is applicable specifically to working-age adults.

Studies on suicide help-seeking that adapt an empirically supported model or theory are limited.¹⁸ Recent literature pointed to the need to use theory to guide investigations of help-seeking.^{5,19,20} The knowledge generated from theory can expand our understanding of suicide help-seeking behaviors and thus guide the design and evaluation of early intervention programs for those at risk of suicide. Suicide help-seeking theory should include the complexity of suicide help-seeking behavior suggested by evidence. For example, to start the help-seeking process, one must first recognize suicidal ideation as a problem that needs help. Suicidal ideation is one of the most important risk factors of death from suicide, and the ideation itself affects quality of life at many levels.²¹ There are, however, individual differences in recognizing or considering suicidal ideation as a problem that needs help. The need to consider help-seeking as a pathway also comes from the need to consider the sources from which people seek help. A large portion of adults with suicidal ideation seek help from non-health care professionals such as religious counselors or traditional health practitioners and from nonprofessional sources such as friends and family.²²⁻²⁴ Considering that current evidence-based suicide prevention strategies are provided primarily by health professionals, it is important to understand the factors related to relying on alternative sources of help as compared with formal health and mental health services.

To examine the pathway of suicide help-seeking among working-age adults, we used the integrated model of suicide help-seeking²⁵ that was developed by combining 2 empirically based help-seeking models. The first is the 3-stage model, which views help-seeking as a process.²⁶ In this model, help-seeking is broadly defined to include problem recognition, decision to seek help, and selection of sources of help. In addition, the Andersen model was used to guide the identification of predisposing, enabling, and need factors related to each stage of the 3-stage model.²⁷ Using this integrated model of suicide help-seeking, we examined factors associated with each stage in the help-seeking pathway among working-age adults with suicidal ideation. By doing so, this study aimed to extend

understanding of help-seeking behavior from the binary outcome of whether the person received treatment to the decision-making process and, thus, to contribute to enhancing help-seeking among working-age adults with suicidal ideation. We expected that considering help-seeking as a pathway can provide us opportunities to prevent suicide at both levels: primary prevention, for helping people recognize suicidal ideation as an indicator of needing help, and primary or secondary prevention, for helping those who recognize the need find the right help.

Methods

Data Source and Sample

Data were drawn from the 2011 and 2012 National Survey on Drug Use and Health (NSDUH).²⁸ The total number of respondents was 58 397 in 2011 and 55 268 in 2012. The sample included 1414 adults aged between 26 and 64 years, who reported suicidal ideation, defined as positively responding to "At any time in the past 12 months, that is, from [date] till today, did you seriously think about trying to kill yourself?" Working-age adults were defined as adults aged between 26 and 64 years based on prior studies²⁹ and the Affordable Care Act.³⁰ The upper age limit of 64 years was based on the fact that, in the United States, the most common retirement age is 65 years.³¹

Measures

Need factors. Having a suicide plan and attempt was assessed with one question each: "During the past 12 months, did you make any plans to kill yourself?" and "During the past 12 months, did you try to kill yourself?" (1 = *yes*, 2 = *no*). Whether a person experienced a major depressive episode (MDE) in the past year was based on *Diagnostic and Statistical Manual of Mental Disorders* (Fourth Edition; *DSM-IV*) criteria,³² evaluated by the respondents' responses to the interview questions (1 = *yes*, 2 = *no*). Six items from the Kessler 6 (K6) scale measured nonspecific psychological distress during the past month,³³ with higher scores indicating a higher frequency of experiencing the symptom (0 = *none of the time*, 1 = *a little of the time*, 2 = *some of the time*, 3 = *most of the time*, 4 = *all of the time*). Cronbach's α for the current sample was .904, and its validity for adults with suicidal ideation was presented in a previous study.³³ The 8 items of the abbreviated World Health Organization Disability Assessment Schedule (WHODAS) were used to measure functional impairment (0 = *no difficulty*, 1 = *mild difficulty*, 2 = *moderate difficulty*, 3 = *severe difficulty*).³⁴ The WHODAS has been validated among various populations including adults with mental disorders^{35,36} and demonstrated good reliability for the current sample (Cronbach's α = .927). Both the K6 and WHODAS total scores can range from 0 to 24. Respondents were classified as dependent or abusing

Table 1. List of Measures for Predisposing and Enabling Factors.

Measures		Variable	Coding
Predisposing factors	Sex	Binary	1 = <i>male</i> and 2 = <i>female</i>
	Race	Binary	1 = <i>white</i> and 2 = <i>nonwhite</i> (individuals identifying as Black/African American, Native American or Alaska Native, Hawaiian or Pacific Islander, Asian, Hispanic, and more than one race)
	Age	Multinomial	1 = <i>26-34 years</i> , 2 = <i>35-49 years</i> , and 3 = <i>50-64 years</i>
	Marital status	Multinomial	1 = <i>currently married</i> , 2 = <i>previously married</i> , and 3 = <i>never married</i>
	Employment ^a	Multinomial	1 = <i>employed full-time</i> (35 hr per week or more), 2 = <i>employed part-time</i> , and 3 = <i>not employed</i>
	Education	Continuous	11 categories from 1 = <i>fifth grade or less</i> to 11 = <i>senior/16th year or graduate/professional school (or higher)</i>
Enabling factors	Insurance ^b	Binary	1 = <i>yes</i> and 2 = <i>no</i>
	Geographic area	Multinomial	1 = <i>large metro area</i> , 2 = <i>small metro area</i> , and 3 = <i>nonmetro area</i>
	Family income	Continuous	1 = <i>less than \$10 000</i> , 2 = <i>\$10 000-\$19 999</i> , 3 = <i>\$20 000-\$29 999</i> , 4 = <i>\$30 000-39 999</i> , 5 = <i>\$40 000-49 999</i> , 6 = <i>\$50 000-\$74 999</i> , and 7 = <i>\$75 000 or more</i>

^aWork situation in the past week.

^bWhether participants had any type of health insurance.

illicit drugs if they met the corresponding *DSM-IV* criteria (1 = *yes*, 2 = *no*). Overall perceived health was measured by the question, “Would you say your health in general is excellent, very good, good, fair, or poor?” (1 = *poor*, 2 = *fair*, 3 = *good*, 4 = *very good*, and 5 = *excellent*).

Predisposing/enabling factors. The variables used to assess the predisposing and enabling factors have been described in Table 1.

Help-Seeking Pathway

Based on the integrated model of help-seeking, the sample was categorized into the following 4 groups for where a participant was placed in the help-seeking pathway: (1) those who did not recognize a need for help, (2) those who recognized a need but did not seek any help, (3) those who sought help from alternative sources but did not receive behavioral health treatment, and (4) those who received behavioral health treatment. The logic of how the groups were created, based on the integrated model, is presented in Figure 1, and variables used to create these groups representing help-seeking stages are provided in Table 2 as well as a previous study that tested this model.³³

Data Analysis

We used Statistical Package for Social Science (SPSS) version 21.0 (SPSS Inc., Chicago, Illinois) for all analyses. Personal level weighting was used to provide correct estimates, and 2 design variables were used for correct computation of the standard errors.³⁴ On screening for missing data, the following variables were found to have complete data: education, K6 total score, WHODAS total score, family income, age, sex, race, marital status, employment status,

insurance, and country. Missing data for past year MDE were 1.3% and 0.1% to 0.7% for other variables. Because of the large sample size and small portion of missing data, the effects of such missing data on the analyses were considered minimal; therefore, each analysis included all cases with complete data for that analysis. Before conducting analyses, demographic statistics for the sample and descriptive statistics of study variables were examined. The skewness and kurtosis for continuous variables fell within the range of ± 1 . The possibility of multicollinearity was ruled out as the variation inflation factor values of all model variables were lower than 2.³⁷ Finally, multinomial logistic regression analyses were used to evaluate the impact of each factor on the odds of moving from the previous stage to the next stage on the help-seeking pathway.

Results

Descriptive Analyses

The results from descriptive analyses for categorical variables are presented in Table 3. The average score for education was 8.81 (SD = 1.99, weighted mean = 8.90). The mean K6 total score was 11.54 (SD = 6.05), and it was 11.43 when weighted, indicating higher psychological distress. Respondents with a score of 13 or higher can be considered as having a serious mental illness.³⁸ Similarly, higher scores on the WHODAS indicate higher functional impairment; the mean for the current sample was 12.01 (SD = 7.28), and it was 11.73 when weighted. The average overall perceived health was 3.14 (SD = 1.14, weighted mean = 3.11). Furthermore, 20% of the sample (23.2% when weighted) reported a family income of \$75 000 or more. The distribution of family income was almost even for the other categories, ranging from 11.2% to 14.5% when weighted.

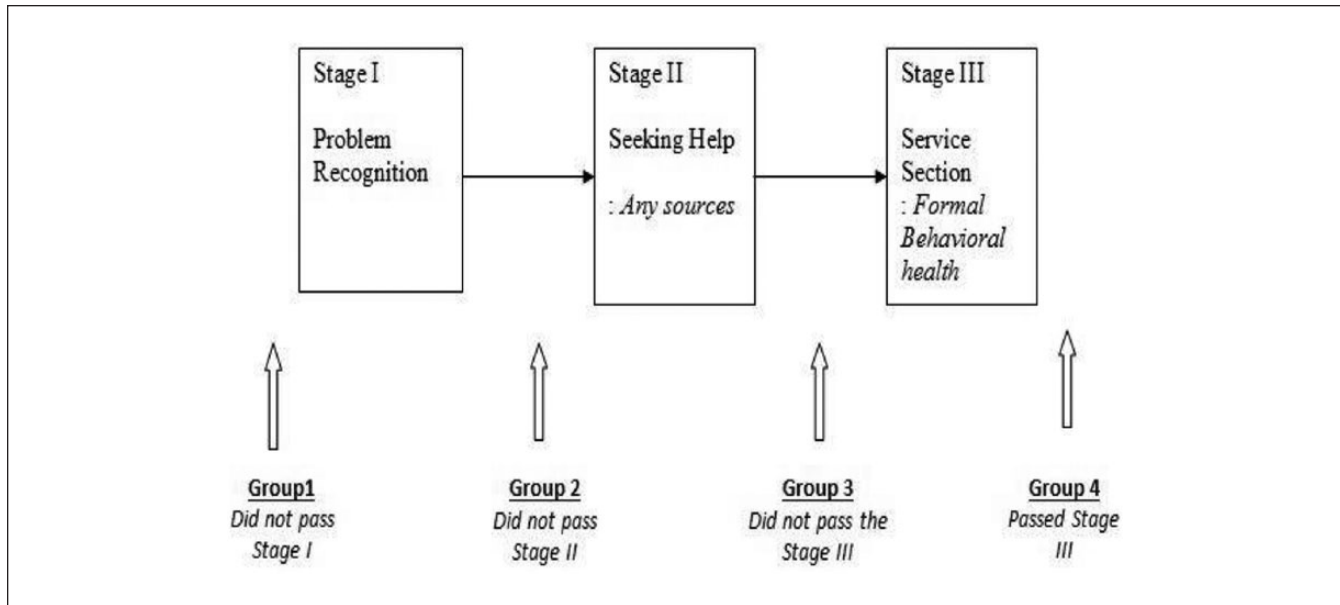


Figure 1. Help-seeking pathway and the groups representing each stage.
 Note. Adapted from Ko.²⁵

Table 2. Variables Used to Create the Groups Representing Help-Seeking Stages.

Groups according to the help-seeking Pathway		Answers to variables
Group 4	Received any behavioral health treatment	Outpatient = yes or Inpatient = yes or Medication = yes or AD treatment
Group 3	Sought help only from alternative sources	Outpatient = no and Inpatient = no and Medication = no and AD treatment = no, AND Alternative sources = yes
Group 2	Recognized a need but did not seek any help	Outpatient = no and Inpatient = no and Medication = no and AD treatment = no, AND Alternative sources = no, AND Recognized a need = yes
Group 1	Did not recognize a need	Outpatient = no and Inpatient = no and Medication = no and AD treatment = no, AND Alternative sources = no, AND Recognized a need = no

Note. Survey Questions for *Outpatient Treatment*: “During the past 12 months, did you receive any outpatient treatment or counseling for any problem you were having with your emotions, nerves, or mental health at any of the places below?” *Inpatient Treatment*: “Have you stayed overnight or longer in a hospital or other facility to receive treatment or counseling for any problem you were having with your emotions, nerves, or mental health?” *Medication*: “Did you take any prescription medication that was prescribed for you to treat a mental or emotional condition?” *Alcohol or Drug Treatment*: “Have you received treatment or counseling for your alcohol or any drug, not counting cigarettes?” *Alternative Sources*: “The list below contains possible sources of treatment, counseling or support that were not mentioned before: acupuncturist or acupressurist, chiropractor, herbalist, in-person support group or self-help group, Internet support group or chat room, spiritual or religious advisor, such as a pastor, priest, rabbi, telephone hotline, massage therapist, and other sources (including family and friends). Did you receive treatment, counseling, or support from any other sources such as these during the past 12 months?” *Need Recognition*: “Was there any time when you needed mental health treatment or counseling for yourself but did not get it?” AD = alcohol or drug.

Multinomial Logistic Regression

Multinomial logistic regression analyses were conducted 3 times using each of the first 3 groups of help-seeking behavior as a reference category to compute the odds ratios (ORs) of moving from one stage to the next in the help-seeking process.³⁹ Table 4 presents the results from the final model of the multinomial logistic regression across different reference groups.

Predisposing factors were entered in model 1. The model correctly classified 58% of the sample. As need factors were entered in model 2, the model correctly classified 65.4% of

the sample. Finally, enabling factors were entered in model 3, and the correct classification rate increased slightly to 65.5%

The results showed that different factors were associated with the odds of being in one group as compared with others. Across the reference groups, females, persons in older age groups, whites, those with a higher education, those who experienced an MDE in the past year, those with higher psychological distress (K6 score), those with a higher functional impairment level (WHODAS score), and those with health insurance were more likely to seek help among working-age adults with suicidal ideation. However, these factors affect

Table 3. Descriptive Statistics of the Categorical Variables.

	N	%	Weighted %
Predisposing			
Sex			
Male	622	44.0	44.6
Female	792	56.0	55.4
Age			
26-34	473	33.5	24.5
35-49	665	47.0	42.7
50-64	276	19.5	32.8
Race			
White	1017	71.9	74.8
Nonwhite	397	28.1	25.2
Marital status			
Currently married	592	41.9	45.6
Previously married	390	27.6	28.6
Never been married	432	30.6	25.8
Employment			
Full-time	609	43.1	43.8
Part-time	152	10.7	11.4
Did not work	653	46.2	44.8
Need			
Past year MDE			
Yes	719	50.8	53.4
No	676	47.8	46.6
Alcohol			
Yes	280	19.8	19.9
No	1134	80.2	80.1
Drug			
Yes	139	9.8	9.4
No	1275	90.2	90.6
Suicide plan			
Yes	421	29.8	29.6
No	988	69.9	70.4
Suicide attempt			
Yes	173	12.2	12.1
No	1235	87.3	87.9
Enabling			
Insurance			
Yes	1049	74.2	75.2
No	362	25.6	24.8
County			
Metro	1092	77.2	83.5
Nonmetro	322	22.8	16.5
Help-seeking group			
1. Did not recognize a need for treatment	404	28.6	28.6
2. Recognized a need but did not seek any help	148	10.5	9.9
3. Sought help only from alternative sources	86	6.1	6.7
4. Received treatment from health professionals	775	54.8	54.8

Note. MDE = major depressive episode.

help-seeking behavior in different stages of the help-seeking pathway. Specifically, men; individuals identifying as black/

African American, Native American or Alaska Native, Hawaiian or Pacific Islander, Asian, Hispanic, and more than one race (coded as nonwhites for the analyses); those with a lower educational level; full-time employees; those without a suicide plan; those without an MDE; those with lower psychological distress; and those with lower functional impairment were less likely to have recognized a need. Younger adults, full-time employees (only for behavioral health services), those with higher psychological distress (only for alternative help), and those with a lower level of functional impairment (only for behavioral health services) were less likely to have received help after need recognition. Nonwhites and those with a lower functional impairment level were less likely to have received behavioral health services from health professionals versus alternative sources.

Discussion

Being male, being nonwhite, being employed full-time, having lower levels of mental health needs, and not having health insurance were associated with not seeking help. The present results also demonstrated the stages in which these factors affected help-seeking behavior among working-age adults.

Working-age men with suicidal ideation are less likely to seek help than women of the same age group, and this gender disparity in help-seeking appears to start at the first stage of help-seeking: problem recognition (OR = 0.43-0.50). Results support a previous study using the NSDUH, which demonstrated low mental health service utilization among men with suicide risk.^{12,13,15} Recent study further reported that among suicidal adults who did not receive mental health treatment, men were less likely to feel the need for treatment.¹⁴ Similarly, in this study, men were less likely to be found at a later stage in the help-seeking pathway, even with the same level of need, indicating a need for efforts to increase public awareness to increase help-seeking among men.

Similarly, individuals identifying as black/African American, Native American or Alaska Native, Hawaiian or Pacific Islander, Asian, Hispanic, and more than one race were less likely to have recognized a need for help-seeking than whites (OR = 2.22-2.44). They were also less likely to have received formal behavioral health services as compared with non-health care services (OR = 2.08). The current results support the racial disproportionality in help-seeking behavior among adults with suicidal ideation shown in prior studies^{12,13,15} and further indicate that race/ethnicity was related in both problem recognition and service selection stages. Evidence from mental health help-seeking literature suggests that preference for seeking help from non-health care professionals may also have been influenced by the cultural mistrust of mental health professionals or concerns that providers may not be culturally competent.⁴⁰ The current study did not examine the role of cultural values because of the limitation of using secondary data. Reliance on

Table 4. Factors Predicting Moving to the Next Stages in the Help-Seeking Pathway.

	Group		Need recognition (ref.: those without recognizing need)			Seeking help (ref.: recognized need but did not seek help)			Help-seeking from health professional (ref.: help-seeking from non-health professionals)		
			OR	CI (L)	CI (H)	OR	CI (L)	CI (H)	OR	CI (L)	CI (H)
Age (ref.: 50-64)	2	26-34	2.44	0.99	6.02	—	—	—	—	—	—
		35-49	1.68	0.54	5.29	—	—	—	—	—	—
	3	26-34	0.69	0.24	1.95	0.28*	0.11	0.73	—	—	—
		35-49	1.25	0.49	3.15	0.74	0.25	2.21	—	—	—
	4	26-34	0.61	0.32	1.15	0.25**	0.12	0.54	0.89	0.39	2.02
35-49		0.94	0.51	1.74	0.56	0.22	1.43	0.75	0.31	1.86	
Men	2	Yes	0.43*	0.22	0.86	—	—	—	—	—	—
	3	Yes	0.32**	0.17	0.62	0.74	0.35	1.55	—	—	—
	4	Yes	0.50**	0.32	0.78	1.15	0.63	2.11	1.56	0.81	3.01
White	2	Yes	2.44*	1.03	5.78	—	—	—	—	—	—
	3	Yes	1.07	0.44	2.58	0.44	0.18	1.04	—	—	—
	4	Yes	2.22**	1.41	3.49	0.91	0.44	1.86	2.08*	1.00	4.32
Married (ref.: never married)	2	Prev ^a	0.82	0.40	1.67	—	—	—	—	—	—
		Cur ^b	0.96	0.44	2.09	—	—	—	—	—	—
	3	Prev.	0.71	0.28	1.78	0.86	0.37	2.00	—	—	—
		Cur.	0.90	0.31	2.58	0.93	0.31	2.80	—	—	—
4	Prev.	1.01	0.62	1.64	1.23	0.68	2.24	1.42	0.64	3.19	
	Cur.	1.13	0.62	2.04	1.17	0.62	2.23	1.26	0.50	3.15	
Education	2		1.06	0.90	1.24	—	—	—	—	—	—
	3		1.21	0.99	1.47	1.14	0.90	1.45	—	—	—
	4		1.15*	1.03	1.29	1.09	0.93	1.29	0.96	0.80	1.14
Employed (ref.: not employed)	2	Full ^c	1.07	0.60	1.92	—	—	—	—	—	—
		Part ^d	0.59	0.23	1.53	—	—	—	—	—	—
	3	Full.	1.12	0.54	2.33	1.04	0.44	2.46	—	—	—
		Part.	1.12	0.41	3.08	1.90	0.55	6.49	—	—	—
	4	Full.	0.60*	0.38	0.96	0.56*	0.33	0.95	0.54	0.26	1.11
Part.		0.62	0.31	1.26	1.05	0.42	2.65	0.55	0.24	1.30	
Plan	2	Yes	1.96	1.00	3.85	—	—	—	—	—	—
	3	Yes	0.80	0.30	2.16	0.41	0.13	1.31	—	—	—
	4	Yes	1.77*	1.04	3.02	0.90	0.49	1.67	2.22	0.75	6.59
Attempt	2	Yes	0.54	0.16	1.74	—	—	—	—	—	—
	3	Yes	0.89	0.19	4.09	1.67	0.28	9.98	—	—	—
	4	Yes	1.22	0.56	2.67	2.29	0.79	6.60	1.37	0.31	6.01
Past MDE	2	Yes	2.45**	1.28	4.68	—	—	—	—	—	—
	3	Yes	1.85*	1.01	3.37	0.75	0.33	1.73	—	—	—
	4	Yes	1.92**	1.19	3.09	0.78	0.41	1.50	1.04	0.51	2.11
K6	2		1.10**	1.04	1.18	—	—	—	—	—	—
	3		1.04	0.98	1.11	0.94*	0.89	0.99	—	—	—
	4		1.09***	1.05	1.13	0.98	0.93	1.05	1.05	0.98	1.12
WHODAS	2		1.05	0.99	1.11	—	—	—	—	—	—
	3		1.01	0.96	1.07	0.97	0.92	1.02	—	—	—
	4		1.11***	1.07	1.16	1.06*	1.01	1.12	1.10***	1.05	1.16
Alcohol	2	Yes	2.05	0.99	4.24	—	—	—	—	—	—
	3	Yes	1.90	0.71	5.10	0.93	0.30	2.85	—	—	—
	4	Yes	1.47	0.85	2.53	0.72	0.42	1.23	0.77	0.31	1.93
Drug	2	Yes	0.85	0.35	2.09	—	—	—	—	—	—
	3	Yes	2.22	0.88	5.61	2.61	0.83	8.22	—	—	—
	4	Yes	1.78	0.90	3.50	2.09	0.85	5.12	0.80	0.33	1.93

(continued)

Table 4. (continued)

	Group		Need recognition (ref.: those without recognizing need)			Seeking help (ref.: recognized need but did not seek help)			Help-seeking from health professional (ref.: help-seeking from non-health professionals)		
			OR	CI (L)	CI (H)	OR	CI (L)	CI (H)	OR	CI (L)	CI (H)
Health	2	Yes	0.97	0.74	1.28	—	—	—	—	—	—
	3	Yes	1.02	0.78	1.34	1.05	0.78	1.40	—	—	—
	4	Yes	0.95	0.74	1.21	0.97	0.78	1.21	0.93	0.70	1.23
Income (family)	2		1.19	0.99	1.44	—	—	—	—	—	—
	3		1.08	0.90	1.29	0.90	0.74	1.10	—	—	—
	4		1.09	0.96	1.24	0.92	0.78	1.08	1.02	0.85	1.22
Insurance	2	Yes	0.72	0.44	1.20	—	—	—	—	—	—
	3	Yes	1.29	0.62	2.70	1.79	0.85	3.76	—	—	—
	4	Yes	2.08**	1.34	3.23	2.87***	1.80	4.59	1.61	0.77	3.36
Metro area (ref.: nonmetro)	2	Large.	1.70	0.72	4.00	—	—	—	—	—	—
		Small.	1.45	0.67	3.17	—	—	—	—	—	—
	3	Large.	0.81	0.28	2.30	0.48	0.15	1.51	—	—	—
		Small.	0.57	0.22	1.52	0.39	0.12	1.29	—	—	—
	4	Large.	0.92	0.52	1.62	0.54	0.24	1.20	1.13	0.40	3.24
		Small.	1.05	0.59	1.88	0.72	0.36	1.45	1.84	0.75	4.53
Correct classification rate			65.5			65.5			65.5		
Nagelkerke pseudo R ²			.406			.406			.406		

Note. Group 1: those who did not recognize a need for treatment; group 2: those who recognized a need but did not seek any help; group 3: those who sought help from alternative sources but did not receive behavioral health treatment; group 4: those who received behavioral health treatment. OR = odds ratio; CI = confidence interval; MDE = major depressive episode; WHODAS = World Health Organization Disability Assessment Schedule.

^aPreviously married.

^bCurrently married.

^cFull-time.

^dPart-time.

* $p < .05$. ** $p < .01$. *** $p < .001$.

alternative sources of help may have more to do with factors other than culture or preference, such as a lack of resources to use health services. The results generally suggest the need for future research to examine the role of race/ethnicity throughout the help-seeking pathway.

Full-time employees with suicidal ideation were less likely to seek help than were those who were unemployed. They were less likely to have recognized a need (OR = 0.60) or received any help after recognizing a need (OR = 0.56), supporting prior studies that analyzed the NSDUH.¹³ Although little is known about the effects of employment status on help-seeking behavior, the literature suggests it may be related to increased difficulty to take off time to visit health care professionals. The prevalence of presenteeism is higher among full-time workers, and this was explained by their higher degree of control and subsequent difficulty to find someone to replace them.⁴¹ In addition, full-time employees may be more concerned about stigma as compared with those who have not been employed because of the potential effects on their job.⁴²

Working-age adults who experienced suicidal ideation without an MDE and with the low level of psychological distress or functional impairment have a low probability of identifying suicidal ideation as a problem that needs help

(OR = 1.09-2.45). These results are aligned with the findings from a previous psychological autopsy study that being employed at the time of death and having higher levels of social problem-solving ability are related to suicide death without seeking treatment.⁴³ The results also support the finding that suicidal adults with serious psychological distress or MDE diagnosis are more likely to seek help.¹⁴ Considering that the definition of suicidal ideation used in the current study only includes serious suicidal ideation, those who are functioning well despite suicidal ideation need more attention. The results suggest a need for a secondary prevention approach of reaching out to people at risk but without severe clinical conditions, whose need for help may otherwise remain unrecognized.

Those without insurance were less likely to have recognized a need (OR = 2.08) and less likely to have received behavioral health services after need recognition (OR = 2.87). Considering that financial problem is a proximal stressor that increases suicide risk,⁴⁴ those with financial problems will experience dually elevated risk as their help-seeking will be further limited by a lack of resources. The results also support the previous finding from the NUDUH study that financial problems are the most frequently reported reason for not receiving mental health treatment

after recognizing a need for care among adults with suicidal ideation.¹⁴

The present study's results should be interpreted cautiously, considering the following limitations. The time precedence between help-seeking and related factors cannot be determined because this study used cross-sectional data. It also limited the examination of the decision-making process in the integrated model because the model assumes the order of the decision-making process. In future, longitudinal data could provide better opportunities to assess how people move from one stage to the next along the help-seeking pathway and how certain identified barriers to help-seeking can be minimized or eliminated. In addition, with the largest odd ratios being smaller than 3, the results should be interpreted with caution when applied to guide suicide prevention strategies.

However, the present findings are generalizable to the broader groups of working-age adults in the United States because it examined help-seeking behavior among a nationally representative sample of working-age adults. Furthermore, the current study showed that the integrated model of suicide help-seeking can be adapted to examine the correlates of the help-seeking pathway, extending the outcome of help-seeking behavior from mental health service utilization to multiple points in the help-seeking pathway. In the future, the model can be further developed using longitudinal data and including important help-seeking variables not included in the current study, such as health belief and cultural value.

Conclusion

The correlates of help-seeking behavior examined in the current study can inform who we can prioritize as a target of efforts to increase suicide help-seeking among working-age adults. For example, an educational approach designed to enhance recognition of suicidal ideation as a problem can focus on men, racial/ethnic minorities, and those without serious clinical conditions. The results also indicate that race/ethnicity and level of functional impairment affect utilization of alternative sources of help such as friends, family, and religious advisors. Finally, concerning the promotion of suicide-related help-seeking behavior among employees, workplaces can consider the lack of problem recognition and service utilization among full-time employees. Efforts at workplaces can include educating employees about suicide risk and adopting workplace policies that ensure that working full-time does not act as a barrier to care.

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