

Suicide among Veterans in Oklahoma, 2005-2012

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Background

- Suicide is the most prevalent type of violent death and is a top ten leading cause of death in Oklahoma.
- Veteran suicide rates increased 34% in Oklahoma from 2005 to 2012, whereas non-veteran suicide rates increased 11% over the same time period.
- Factors that have been shown to increase the risk of suicide include male gender, white race, being unmarried, and older age (1).

Objectives

- Evaluate risk factors associated with veteran suicides in Oklahoma.
- Compare suicide circumstances among veterans and non-veterans.
- Examine veteran suicide circumstances by life stages.

Methods

- Data for 2005-2012 were obtained from the Oklahoma Violent Death Reporting System on veteran suicide victims aged 18 years and older.
- Multiple logistic regression was used to compare suicide risk factors among veteran and non-veteran suicide victims.
- Rates were calculated using U.S. Census Bureau populations for veterans and non-veterans in Oklahoma (factfinder.census.gov).

Results

- From 2005 – 2012, there were 1,019 veteran suicide deaths, accounting for an average of 127 deaths per year.
- The suicide rate among veterans was two times higher than the rate among non-veterans (39.2 and 18.2, respectively).
- The mean age of veteran suicide victims was 58 years and the mean age of non-veterans was 43 years.
- Compared to non-veterans, veteran suicides were more often associated with physical health problems (Table 1).
- Suicide circumstances varied by life stage; physical health problems were more common among older veterans, while intimate partner problems were more common among younger veterans (Figure 1).
- Veteran suicide victims were significantly more likely to be male, older in age, and have higher educational levels than non-veteran suicide victims (Table 2).

Figure 1. Suicide Circumstances by Life Stage among Veterans, Oklahoma, 2005-2012

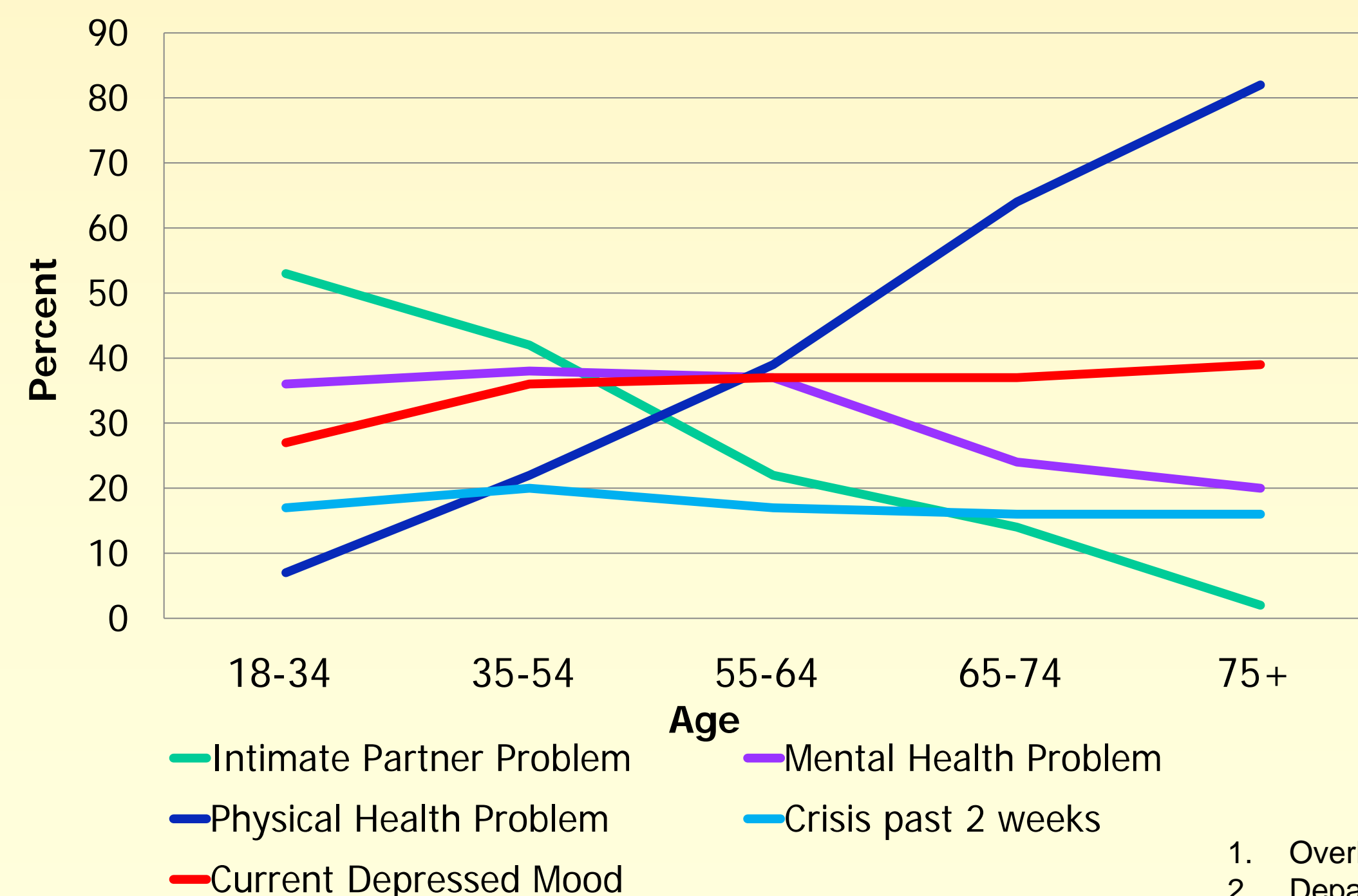


Table 1. Leading Suicide Circumstances* by Veteran Status, Oklahoma, 2005-2012

Rank	Veteran	Non-Veteran
1	Physical Health Problem 44%	Intimate Partner Problem 38%
2	Current Depressed Mood 36%	Current Mental Health Problem 36%
3	Current Mental Health Problem 31%	Current Depressed Mood 35%
4	Intimate Partner Problem 26%	Physical Health Problem 22%
5	Crisis in Past 2 Weeks 18%	Crisis in Past 2 Weeks 18%

*More than one circumstance may have been involved.

Discussion

- Findings are consistent with the 2012 Suicide Data Report (2) showing that veteran suicide victims had higher educational levels than non-veteran suicide victims. Studies on overall suicide rates and educational attainment report mixed results (3).
- Being married has been shown to be a protective factor for suicide. In contrast, this study indicates that single/never married may be a protective factor for veteran suicides.
- Understanding risk factors and circumstances of veteran suicides, especially by life stage, may allow specific interventions to prevent suicide.

Table 2. Risk Factors Associated with Veteran Suicides, 2005-2012

Risk Factors	Adjusted Odds Ratio (95% CI)
Gender	1.00
Female	1.00
Male	19.85 (13.05 – 30.19)
Age Group	1.00
18-34	1.00
35-54	1.48 (1.15 – 1.90)
55-64	3.75 (2.77 – 5.08)
65-74	6.82 (4.77 – 9.76)
75+	15.47 (10.37 – 23.09)
Race	1.00
White	1.00
African American	1.16 (0.75 – 1.81)
American Indian	0.82 (0.60 – 1.11)
Other	1.03 (0.43 – 2.49)
Mixed	0.86 (0.45 – 1.66)
Education	1.00
< High School	1.00
High School Graduate	2.35 (1.84 – 3.00)
College/Associates Degree	2.67 (2.06 – 3.47)
Bachelors Degree or Higher	1.90 (1.40 – 2.58)
Marital Status	1.00
Married	1.00
Divorced	0.95 (0.79 – 1.16)
Single/Never Married	0.57 (0.44 – 0.74)
Widowed	1.06 (0.75 – 1.49)
Firearm Used	1.02 (0.85 – 1.22)
Intimate Partner Problem	0.90 (0.74 – 1.09)
Mental Health Problem	1.11 (0.93 – 1.32)
Current Depressed Mood	0.92 (0.78 – 1.09)
Physical Health Problem	1.17 (0.96 – 1.44)
Job Problem	0.91 (0.69 – 1.21)
Recent Crisis	1.03 (0.82 – 1.28)
Alcohol Problem	0.97 (0.76 – 1.23)

Note: Analyses included 4,542 suicide victims; 1,019 veterans and 3,523 non-veterans. Bold type indicates statistical significance.

1. Overholser JC, Braden A, Dieter L. Understanding Suicide Risk: Identification of High Risk Groups during High Risk Times. J Clin Psychol. 2012;68(3): 349-361.
 2. Department of Veteran Affairs. *Suicide Data Report 2012*. <http://www.va.gov/opa/docs/suicide-data-report-2012-final.pdf>.
 3. Centers for Disease Control and Prevention – MMWR. *Suicides - United States, 2005–2009*. www.cdc.gov/mmwr/preview/mmwrhtml/su6203a31.htm.