

## RESEARCH

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### Abstract

**Objective** Young adults experiencing homelessness often suffer from adverse mental health outcomes and suicide is a leading cause of death. The objective of this study is to examine service use and psychosocial risk factors for suicide, in relation to suicide risk assessment, to inform strategies for engaging youth in suicide prevention services.

**Methods** A cross-sectional analysis of youth enrolled in a supportive housing randomized clinical trial. We categorized suicide risk into three groups (low-, moderate-, and high-risk) based on suicidal ideation and past-year suicide attempt. The service use patterns across these groups are described, as well as other psychosocial risk factors (psychiatric comorbidity, depressive symptoms, substance use, and sleep impairment).

**Results** Among 193 enrolled youth, 126 (65.3%), 32 (16.6%), and 35 (18.1%) were categorized as low-risk, moderate-risk, and high-risk for suicide, respectively. A high proportion of youth reported ever having been diagnosed with a

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## Introduction

Young adults experiencing homelessness (YEH) between the ages of 18–24 years suffer from adverse mental health and substance use outcomes [1], including suicidal ideation and drug overdose [2, 3]. Suicide and drug overdose are leading causes of death for YEH based on prior longitudinal epidemiologic studies [4, 5]. Further, suicidal ideation and prior suicide attempts are strong predictors of future suicide attempt [6], and suicidal ideation also predicts non-fatal drug overdose among YEH [3]. Youth who are unhoused experience suicidal behaviors to a greater extent than the general population, with prior studies estimating rates of past-year suicidal ideation and attempts among YEH more than double that of their housed counterparts [7]. Conditions of homelessness, stigma, and social exclusion perpetuate and reinforce poor mental health and risk behaviors for YEH and complicate access to treatment [8].

Several known psychosocial risk factors for suicide are prevalent among YEH. Substance misuse often co-occurs with suicidal ideation [9, 10], and is often involved in suicide deaths. Depressive symptoms are a strong independent predictor of suicidal behaviors, even after controlling for other psychosocial risk factors [11]. In addition, growing literature suggests that sleep has a strong relationship with suicidal ideation [12]. The high burden of depressive symptoms [13], substance misuse [14], and poor sleep [15] among YEH could exacerbate risk for suicide and, additionally, pose as a barrier for exiting homelessness [16].



### *Analyses*

Descriptive statistics were used to characterize the sample overall and by suicide risk categories. We compare the

(SD=3.6) and multiple attempts were common among those with a prior suicide attempt (mean=6.0, SD=9.7). Among the high-risk group, 62.9% reported a past-year suicide attempt. Whereas 56.4% of youth identified as male in the low-risk group, 34.3% identified as male in the high-risk group. A high proportion of the low-risk group identified as non-Hispanic Black (62.7%), but a little less than half of the high-risk group identified as non-Hispanic Black (45.7%). Meanwhile, 17.5% of youth identified as non-Hispanic White in the low-risk group, but 31.4% of those in the high-risk group identified as non-Hispanic White. Most youth reported a current period of homelessness of more than one month and the average age of first being unhoused was approximately 16 years. Youth who did not complete the baseline SSI-W and were excluded ( $n=47$ ) were similar demographically and in terms of suicide risk to the larger sample included in the present study ( $n=193$ ). For example, among those excluded, average age was 21.4 years (SD=1.9), 51.1% were male, 55.3% were non-Hispanic Black, 12.8% had a

past-year suicide attempt, and the average number of lifetime attempts was 4.3 (SD=4.6), which were comparable to what was observed in the study sample (Table 1).

Psychosocial risk factors for suicide were common

symptoms based on BDI-II Score (45.7%), while only 5.6% of the low-risk group had severe depressive symptoms. The mean percent of days with any substance use over the prior 90 days was 45.7 (SD = 42.5) overall and did not differ significantly across suicide risk groups. There were also no significant differences in mean age of first substance use by suicide risk group. However, there was variation in the PROMIS sleep measure across suicide risk groups, such that the proportion of youth within normal limits of sleep impairment was significantly lower for the high-risk (22.9%) relative to the low-risk group (60.3%) ( $\chi^2 = 4.53, p = 0.0001$ ), as well as the moderate-risk (31.3%) relative to the low-risk group ( $\chi^2 =$

or behaviors when left unaddressed. Depressive symptoms were high in this sample, particularly for those in the highest risk category, which is a strong predictor of both suicidal ideation and attempts [

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