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BRIEF REPORT

Substance use disorders, psychiatric conditions, and rapid re-housing outcomes for youth experiencing homelessness: a brief report

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ABSTRACT

Introduction: Rapid re-housing (RRH) for individuals experiencing homelessness is associated with decreased chronic homelessness and better health outcomes. However, little is known about young people's RRH outcomes. Method: The present study examines RRH outcomes for youth experiencing homelessness of varying substance use disorder (SUD) and psychiatric profiles. Young people entered RRH units between May 2020 and April 2021. Data were gathered via structured assessment. Housing outcomes were assessed after 1 year. Successful outcomes included lease renewal or program completion. Unsuccessful outcomes included loss of lease or voluntary termination. Results: Fifty-one young people participated in this study, with most participants identifying as cis male and Black/African American. Diagnosis of alcohol use disorder and frequency of cannabis use predicted significantly lower likelihood of successful housing outcomes. Conclusion: Our findings suggest the need for targeted intervention for substance use among young people as a mechanism to improve sustainability in RRH programs.

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Homeless; housing; cannabis; alcohol; youth

Each year, 1 in 10 young people between the ages of 18 and 25 experience some form of homelessness (Morton et al., 2018). Prompt connection to housing services is a critical intervention to prevent adverse health outcomes and future chronic adult homelessness among youth experiencing homelessness (Byrne et al., 2023; Padgett et al., 2015). Rapid re-housing (RRH) is a housing-first intervention that provides time-limited financial and rental assistance alongside targeted supportive services to homeless young people and adults (National Alliance to End Homelessness. Rapid Re-Housing Performance Benchmarks and Program Standards, 2016). While the duration and extent of RRH programs vary between communities, RRH typically involves medium-term rental subsidies alongside case management and behavioral health services (National Alliance to End Homelessness. Rapid Re-Housing Performance Benchmarks and Program Standards, 2016). In many instances, RRH entry is not contingent upon strict entry criteria related to psychiatric conditions, substance use, or employment, though programs may provide incentives or support for participants to access services and may have graduated expectations for participants to seek employment and contribute toward rent.

Though evidence suggests that the provision of housing services is associated with decreased chronic homelessness and better health outcomes, the scope of the evidence for RRH outcomes in young people remains limited (Byrne et al., 2023; Semborski et al., 2021; Slesnick et al., 2023). Specifically, to our knowledge no prior studies have evaluated psychiatric and/or SUD-related factors associated with short – to medium-term housing retention and stability among youth in RRH programs. In a survival analysis examining youth retention in RRH, Hsu et al. (2021) found that younger age, black or Latino youth (compared to white), and youth of higher vulnerability had a higher likelihood of exiting RRH prematurely (Hsu et al., 2021). Though this study included youth mental health status in its larger assessment of "vulnerability", no specific comparisons for outcomes were made between young people with and without various psychiatric disorders or SUDs. This gap in the existing literature is important given that most mental health disorders and SUDs begin prior to age 26, and these conditions are associated with significant disability in young people (Wilens & Rosenbaum, 2013). TAY-EH have disproportionately elevated rates of SUDs and other psychiatric disorders (Burke et al., 2023),

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and the sequelae of these conditions – specifically suicide and overdose – are the leading causes of excess mortality among young people experiencing homelessness (Auerswald et al., 2016). Because young people with greater mental health needs typically receive priority for available RRH housing resources due to their greater vulnerability (Rice et al., 2018), understanding how specific psychiatric disorders and SUDs are associated with short – and medium-term housing trajectories for TAY-EH is critical in the design and evaluation of these programs.

The present study

To this end, the present study aims to describe the association between psychopathology/SUD and RRH outcomes among transitional-age youth experiencing homelessness (TAY-EH; youth between the ages of 16 and 25) to identify profiles of young people most likely to benefit from additional targeted support during their tenure in RRH and to inform future RRH policies. We hypothesized that TAY-EH with psychopathology and/or SUD would be more likely to experience unsuccessful RRH outcomes such as loss or early termination of lease than young people without such disorders. Secondarily, we examined if specific disorders would be associated with RRH outcomes.

Methods

Subjects

Subjects were TAY-EH presenting for low-threshold services at Bridge Over Troubled Waters (BOTW), a psychosocial support agency in Boston, MA offering drop-in services, day programming, behavioral health therapy, emergency shelter, and transitional living services. Young people engaged in RRH were identified from a larger sample of TAY-EH who participated in a cross-sectional characterization study employing structured psychiatric interviews described elsewhere (Burke et al., 2023). The study was approved by the Mass General Brigham Institutional Review Board.

Briefly, interviews were conducted by trained research staff via secure video visits between April 2020 and July 2021. Participants were recruited in-person by agency staff and used computer equipment located on-site. Individuals between 16 and 25 years of age accessing any level of support at BOTW were eligible for enrollment. TAY-EH experiencing acutely unstable medical or psychiatric symptoms that limited engagement in the study, non-English speaking TAY-EH, and TAY-EH with limited capacity to complete survey measures with staff assistance were excluded.

Demographic and psychosocial data were gathered via structured assessment. Comprehensive psychiatric and SUD diagnostic data were gathered via the Mini International Neuropsychiatric Interview (MINI) with supplemental ADHD module (Sheehan et al., 1998). Data were gathered for all disorders apart from eating disorders, which were excluded to reduce survey burden. As this sample of youth receiving RRH were a subgroup of a larger cross-sectional study, the timing of the cross-sectional assessment was not directly linked to RRH entry. TAY-EH completed the cross-sectional study a mean of 9.9 days (SD = 75) prior to entry into RRH.

Program staff additionally perform an intake assessment prior to youth entering RRH; in addition to data gathered from the larger cross-sectional study as noted above, we extracted data on past-month cannabis use for our RRH sub-sample from the program's RRH intake assessment, which utilizes the Drug Use Questionnaire (Substance Abuse and Mental Health Services Administration) to gather information on frequency of substance use prior to RRH entry.

Rapid re-housing program

TAY-EH entered RRH units between May 2020 and April 2021. Unit types included single-room occupancy, one-bedroom apartments, two-bedroom apartments, and shared apartments with multiple roommates. TAY-EH were eligible to receive up to 2 years of support. Eligible TAY-EH for RRH were those between the ages of 18 and 24 years who had experienced at least 30 days of homelessness in the city of Boston over a 3-year period. At intake and subsequent 3-month intervals, TAY-EH participated in rental re-certifications with an assigned case manager. At these re-certification meetings youth provided documentation of their income in order to calculate an appropriate rental contribution for the next 3 months. Between re-certification meetings, TAY-EH were eligible for weekly case management and weekly behavioral health treatment if desired.

The main outcome of the current study was whether individuals had successful or unsuccessful RRH outcomes after one year in RRH. A successful outcome was operationalized as either completion of the RRH program where the TAY-EH participant no longer needed rental assistance or case management from the program or lease renewal for a second year of housing. Unsuccessful outcomes included loss of lease or voluntary termination in which the youth left or abandoned the unit before completing the RRH program. These data were collected as part of routine assessments by program staff after the first

year of RRH (or sooner, for youth who exited RRH prior to the end of the first year).

Statistical analyses

Differences between TAY-EH with successful versus unsuccessful RRH outcomes were explored using Chi-Squared analyses. Housing outcomes were explored in relation to the presence of any psychiatric disorder or any SUD, as well as in relation to specific disorders. To further explore the impact of substance use on housing outcomes, an additional one-way ANOVA examined how the frequency of cannabis use, the most commonly used substance previously shown in this sample (Burke et al., 2023), in the month preceding baseline entry into RRH was related to housing outcomes, and how the presence of SUD related to housing outcomes specifically for individuals with any psychiatric disorder. Analyses were conducted using SPSS, and all tests were two-tailed and evaluated for significance at $\alpha = 0.05$. Due to the small sample size of the current study and the resulting limited ability to detect significant statistical differences, α values between 0.05 and 0.1 were considered to be trending toward significance.

Table 1. Demographic and psychiatric characteristics of TAY-EH in RRH (n = 51).

Variable	Value	
	Mean	(SD)
Age, y	20.7 ± 1.9	
	N	(%)
Gender identity		
Cis man	29	(57%)
Cis woman	19	(37%)
Transgender (female to male)	2	(4%)
Transgender (male to female)	1	(2%)
Race		
Black or African American	41	(80%)
White	9	(18%)
Multiracial	1	(2%)
Ethnicity		
Hispanic/Latino	21	(41%)
Not Hispanic/Latino	25	(49%)
Other or declined	5	(10%)
Psychiatric disorders (any)[a]	34	(67%)
Mood disorder	29	(57%)
Attention-deficit hyperactivity disorder (ADHD)	18	(35%)
Anxiety disorder	14	(28%)
Antisocial personality disorder	9	(18%)
Obsessive-compulsive disorder	5	(10%)
Post-traumatic stress disorder (PTSD)	5	(10%)
Substance use disorders (any)	24	(47%)
Cannabis use disorder	23	(45%)
Alcohol use disorder	12	(24%)

[a]Time frames vary for each disorder. Mood disorders (includes major depressive disorder and bipolar I disorder) = any past or current; ADHD = not specified; anxiety disorders (includes panic disorder, generalized anxiety disorder, and social anxiety disorder) = any past or current; obsessive-compulsive disorder = past month; PTSD = past month; antisocial personality disorder = lifetime.

Results

Of the 147 participants enrolled in the larger cross-sectional study, 56 individuals also participated in RRH. Five of the 56 individuals did not complete the full cross-sectional assessment, thus leaving 51 TAY-EH eligible for analysis. TAY-EH completed the cross-sectional study a mean of 9.9 days (SD = 75) prior to entry into RRH. Descriptive statistics detailing the demographic and psychiatric profiles of this sample can be found in Table 1. The majority of participants identified as cis men (57%) and Black or African American (80%). Most participants met criteria for a psychiatric disorder (67%), and 47% of the participants met criteria for an SUD.

Associations with housing outcomes

Associations between psychiatric disorders/SUDs and RRH outcomes can be found in Table 2. Twenty-three TAY-EH had unsuccessful RRH outcomes, and 28 had

Table 2. Psychiatric disorders and SUDs as predictors of housing outcomes.

Variable	Positive housing outcome (N)	Negative housing outcome (N)	χ^2	*p*-value
Psychiatric disorders (any)				
Mood disorder			.38	.54
Yes	17	12		
No	11	11		
Attention-deficit hyperactivity disorder			1.56	.21
Yes	12	6		
No	16	17		
Anxiety disorder			1.13	.29
Yes	6	8		
No	22	15		
Antisocial personality disorder			.48	49
Yes	4	5		
No	24	18		
Obsessive-compulsive disorder			1.32	.25
Yes	4	1		
No	25	22		
Post-traumatic stress disorder			.50	.48
Yes	2	3		
No	26	20		
Substance use disorders (any)				
Cannabis use disorder			2.21	.14
Yes	10	13		
No	18	10		
Alcohol use disorder			5.67	**.017**
Yes	3	9		
No	25	14		

successful outcomes. Of all diagnostic variables, a diagnosis of alcohol use disorder (AUD) was significantly associated with housing outcomes such that individuals with AUD (N = 12 total, 3 with successful RRH outcomes) were significantly less likely to have successful housing outcomes than individuals without AUD (N = 39 total, 25 with successful RRH outcomes; $\chi^2 = 5.67$, $p = .017$). The presence of SUD was also significantly associated with housing outcomes, such that individuals with any SUD were less likely to have successful housing outcomes than individuals without any SUD ($\chi^2 = 5.17$, $p = .023$).

While cannabis use disorder was not significantly associated with housing outcomes ($\chi^2 = 2.21$, $p = .14$), frequency of cannabis use in the time preceding entry into RRH was significantly associated with housing outcomes. Individuals endorsing a greater number of days of cannabis use in the month preceding RRH entry were significantly less likely to have successful housing outcomes than individuals endorsing less use ($F = 4.66$, $p = .033$).

Individual psychiatric diagnoses were not found to be independently associated with housing outcomes (mood disorder, $\chi^2 = .38$, $p = .54$; attention-deficit/hyperactivity disorder, $\chi^2 = 1.56$, $p = .21$; anxiety disorder, $\chi^2 = 1.13$, $p = .29$; antisocial personality disorder, $\chi^2 = .48$, $p = .49$; obsessive-compulsive disorder, $\chi^2 = 1.32$, $p = .25$; post-traumatic stress disorder, $\chi^2 = .50$, $p = .48$). However, for individuals with any psychiatric disorder, the presence of a comorbid SUD trended towards significantly predicting housing outcomes: individuals with comorbid psychopathology and SUD (N = 20 total, 9 with successful RRH outcomes) were less likely to have successful housing outcomes than individuals with psychopathology alone (N = 14 total, 11 with successful RRH outcomes; $\chi^2 = 3.83$, $p = .050$).

Discussion

The results of the current study supported our hypothesis that SUD was linked to more unsuccessful RRH outcomes, as TAY-EH with SUD, AUD, or higher-frequency cannabis use were less likely to remain in housing than those without these characteristics. Though no individual psychiatric disorder was significantly associated with RRH success, there was a trend toward worse outcomes among youth with co-occurring SUD and psychiatric illness.

In studies of adults experiencing homelessness, there is mixed evidence for the relationship between substance use problems and sustainability in various supportive housing programs (Edens et al., 2011; Hurlburt et al., 1996; Schutt et al., 2021). These findings align with the well-documented impacts of substance use, and particularly cannabis use, on neurocognitive functioning (Dellazizzo et al., 2022), quality of life (Goldenberg et al., 2017), and psychosocial functioning (Meier, 2021) in youth and young adult populations. To our knowledge, the current study is the first to identify SUDs and substance use behaviors as risk factors for poorer sustainability for TAY-EH in RRH. RRH programs, in comparison to permanent supportive housing models, typically have lesser service intensity;[6] our findings suggest the need for targeted support and intervention for substance use among TAY-EH in RRH as a primary mechanism to improve sustainability of housing. Encouragingly, a variety of individual, group, and psychosocial interventions are effective within the general population of transitional-age youth for alcohol and cannabis use (Burke & Wilens, 2022). The adaptation, implementation, and effects of these interventions among youth in RRH merit further study.

The results of the current study have several methodological limitations. The small sample size did not afford statistical power to conduct analyses with multivariant models. Furthermore, housing outcomes were operationalized as a binary variable. As such, findings do not account for the variety of potential housing outcomes after RRH or reasons for leaving RRH. The study was conducted in one program in the northeastern United States and may not generalize to other regions. Further, exclusion criteria in the larger parent study which excluded TAY-EH experiencing acutely unstable medical or psychiatric symptoms, non-English speaking TAY-EH, and TAY-EH with limited capacity to complete survey measures with staff assistance may have skewed this sample toward a less-psychiatrically-distressed population, despite very low rates of exclusion for these reasons. Finally, TAY-EH in this sample entered RRH during the Covid-19 pandemic, and may have experienced varying levels of societal quarantine, access to external supports, and educational, employment, and social opportunities as a result. Though all RRH participants retained full access to program supports and clinical treatment during this time, the extent to which these factors influenced outcomes may merit exploration in larger replication studies.

Despite these limitations, the results of this study highlight the importance of substance use behaviors in negatively affecting RRH outcomes for TAY-EH. These findings suggest the integration of SUD-specific supports and intervention services for TAY-EH in RRH as a potential method for improving housing

sustainability. These findings warrant replication in larger, geographically diverse samples to inform targeted screening and intervention services to improve outcomes for TAY-EH in RRH.

Disclosure statement

Timothy E. Wilens, MD: Dr. Wilens has co/edited books: ADHD in Adults and Children (Cambridge University Press), Straight Talk About Psychiatric Medications for Kids (Guilford Press), An Update on Pharmacotherapy of ADHD (Elsevier Press). Dr. Wilens has a licensing agreement with Ironshore (BSFQ Questionnaire) and 3D Therapeutics. He is a clinical consultant to U.S. Minor/Major League Baseball, Gavin Foundation, and Bay Cove Human Services. He has received funding from NIDA grant UH3DA050252. No further disclosures or conflicts to report.

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