Homelessness Across the Lifespan: Clinical Approaches, Prediction, and Prevention

Katherine A. Koh, MD, MSc Colin W. Burke, MD May 1st, 2023





Harvard Square

Psychiatry

Boston Health Care for the Homeless Street Team

Boston Health Care for the Homeless Program

- Provides care to 11,000 homeless individuals in 45 clinical sites, including street and shelter-based care
- Offers mental health, medical, dental, eye, and respite services
- Integrated care model unites peer specialists, case managers, social workers, nurses, NPs, PAs & physicians





A Framework to Prevent Suffering on the Street



Koh, Roncarati, O'Connell. JAMA IM. 2021.



Homelessness Prevention: A Framework



Tsai and Rosenheck. *Epidemiol Rev.* 2015; Liu et al. *Lancet Public Health.* 2021; Koh and Montgomery. *Lancet Public Health.* 2021; Byrne et al. *J of Urban Affairs.* 2016; Giano et al. *Community Mental Health Journal* 2020.

Prediction Modeling for Homelessness

American Journal of Preventive Medicine

RESEARCH ARTICLE

Predicting Homelessness Among U.S. Army Soldiers No Longer on Active Duty



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> *Key question*: Can homelessness among U.S. army veterans be predicted with accuracy based on data collected during their time of military service?

Results and Next Steps

- A prediction model for homelessness can accurately target soldiers for preventive intervention before transition to civilian life.
- Indicators of mental health emerged as most important predictors, as well as certain lifetime traumas and adverse life experiences.
- Next steps: designing, implementing, and evaluating a preventive intervention for high-risk soldiers transitioning to civilian life.



Koh et. al, American Journal of Preventive Medicine, 2023.





Transitional Age Youth Experiencing Homelessness

Colin W. Burke, MD



Background



- Clinical and Research pathway
- MGH, Harvard Medical School, and K12 Research
- Academic-Community Partnership

Background

- Team:
 - Timothy Wilens, MD
 - Peter Ducharme, MSW
 - Sylvia Lanni, BA
 - Shaye Firmin, BA
 - Maura DiSalvo, MPH

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REVIEW ARTICLE

Systematic review: Rates of psychopathology, substance misuse, and neuropsychological dysfunction among transitional age youth experiencing homelessness

Colin W. Burke MD 00 | Elizabeth S. Firmin BA | Timothy E. Wilens MD

TABLE 2 Comparison of TAY-EH psychopathology/SUD rates with population means ^a					
Disorder	TAY-EH	Population mean			
Major Depressive Disorder	31%-95%	15% ⁴⁸			
Bipolar Disorder	22%-50%	5.9% ⁴⁸			
Anxiety Disorders	23%-51%	30% ⁴⁸			
PTSD	21%-80%	6.3% ⁴⁸			
ADHD	30%-56%	7.8% ⁴⁸			
Alcohol Use Disorder	13%-50%	9.3% ⁴⁹			

Abbreviations: SUD, substance use disorders; TAY-EH, Transitional age youth experiencing homelessness.

^aTAY-EH data included only for disorders with >1 study reporting prevalence.

Prevalence, Comorbidity, and Psychosocial Correlates of Psychopathology and Substance Use Disorders Among Homeless Transitional Age Youth: Preliminary Findings



NEW RESEARCH | ARTICLES IN PRESS

Substance Use Disorders and Psychiatric Illness Among Transitional Age Youth Experiencing Homelessness

<u>Colin W. Burke, MD A ⊠</u> • Elizabeth S. Firmin, BA • Sylvia Lanni, BA • Peter Ducharme, MSW • Maura DiSalvo, MPH • Timothy E. Wilens, MD

Open Access • Published: January 17, 2023 • DOI: https://doi.org/10.1016/j.jaacop.2023.01.001

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Mean

TABLE 2 Psychiatric and Substance Use Disorders Based on Mini International Neuropsychiatric Interview				
	Value	n (%)		
Psychiatric disorders				
Major depressive	39	(28)		
disorder, past				
Bipolar I disorder, past	30	(21)		
ADHD ^a	33	(24)		
Panic disorder, lifetime	11	(8)		
Antisocial personality disorder, lifetime	20	(14)		
Suicidality, lifetime attempt	51	(36)		
Generalized anxiety disorder,	16	(11)		
past 6 months				
Social anxiety disorder, past	12	(9)		
month				
PTSD, past month	20	(14)		
Obsessive-compulsive	23	(16)		
disorder, past month				
Substance use disorders, past 12				
months				
CUD	62	(44)		
AUD	29	(21)		
Hallucinogens	4	(3)		
Stimulants	3	(2)		
Cocaine	3	(2)		
Sedatives, hypnotics, or anxiolytics	2	(1)		
Miscellaneous	2	(1)		
Opiates	1	(<1)		
Inhalants	1	(<1)		
Dissociative drugs	0	(0)		

NEW RESEARCH | ARTICLES IN PRESS

- Substance Use Disorders and Psychiatric Illness Among Transitional Age Youth Experiencing Homelessness
- Colin W. Burke, MD_ & ⊠ Elizabeth S. Firmin, BA Sylvia Lanni, BA Peter Ducharme, MSW Maura DiSalvo, MPH Timothy E. Wilens, MD
- Open Access Published: January 17, 2023 DOI: https://doi.org/10.1016/j.jaacop.2023.01.001

FIGURE 1 Mean Number and Rate of Psychiatric Disorders by Highest Cannabis Use Disorder and/or Alcohol Use Disorder Severity



Research – Stress and Cannabis

- Why is cannabis use so common among TAY-EH?
- Hypothesis: High burden of stress and dysregulated stress reactivity drives high rates of cannabis use
 - Early life adversity
 - Discrimination/stigma
 - Resilience
 - Psychiatric and substance use disorders
- Psychophysiological assessments measuring stress response and connection to cannabis use disorder

Research – Resilience



Research – Next Steps

- Collaborations with Center of Excellence
- Integrating clinical care, teaching, and outcome research at Bridge Over Troubled Waters
- Participant-centered, responsible, and responsive study designs