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Relations between mental health diagnoses, mental health treatment, and substance use in homeless youth

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ABSTRACT

Background: Youth experiencing homelessness have elevated rates of mental illness and substance use compared to the general population. However, the extent to which underlying mental health issues may contribute to substance use as a way to manage symptoms and whether mental health treatment may reduce risk for substance use is unclear. This paper investigated these relations in a community sample of homeless youth.
Methods: Youth ages 13–24 ($N = 416$) were interviewed as part of a community count and survey of homeless youth in Houston, Texas. A path analysis examined relations among lifetime diagnoses of ADHD, bipolar disorder, and depression; past-month marijuana, alcohol, and synthetic marijuana use, and hypothesized mediators of past-year mental health treatment and perceived unmet need for treatment.
Results: Rates of prior mental disorder diagnoses were high, with extensive comorbidity across the three diagnoses ($n = 114$, 27.3% had all three diagnoses). Relations varied by diagnoses and substances. ADHD was positively related to current marijuana use ($\beta = 0.55$ (0.16), $p < 0.001$), a relation that mental health treatment did not mediate. Depression was positively related to synthetic marijuana use through unmet need ($\beta = 0.25$ (0.09), $p = 0.004$) and to alcohol use through unmet need ($\beta = 0.20$ (0.10), $p = 0.04$)
Conclusions: This study provides new information about relations between prior mental health diagnoses and substance use in homeless youth. Findings support the need to consider prior mental disorder diagnoses in relation to current substance use and to assess for whether youth perceive they have unmet needs for mental health treatment.

1. Introduction

Youth homelessness is a significant problem in the United States, affecting approximately 50,000 youth under the age of 25 each night (U.S. Department of Housing and Urban Development [HUD], 2014). Mental disorders and substance use are prevalent in this population (Greene et al., 1997; Hadland et al., 2011; Hodgson et al., 2013, 2014; Quimby et al., 2012) and are associated with longer episodes of homelessness and victimization while on the streets (Bender et al., 2015). Although the literature supports high rates of comorbidity between mental health problems and substance use (Merscham et al., 2009), few studies have explored the nature of the relations between mental health and substance use and whether specific mental health diagnoses contribute to use of specific substances. Better understanding these relations can assist in designing interventions to target mental disorders and decrease substance use in this high-risk population.

1.1. Substance use and mental illness in homeless youth

Substance use and substance use disorders are prevalent among homeless youth, particularly those living on the streets (i.e., Greene et al., 1997). A study that used four different national surveys found that 80.9% of street youth ages 12–21 had used alcohol and 75.3% had used marijuana ($n = 538$). Those who were in shelters ($n = 631$) had somewhat lower prevalence with 67.0% using alcohol and 54.0% using marijuana (Greene et al., 1997). There is also evidence that this use can be problematic. A study of homeless street youth in 3 U.S. cities ($n = 146$) found that 46.3% met criteria for alcohol abuse or dependence and 40.4% met criteria for other substance abuse or dependence (Ferguson et al., 2010).

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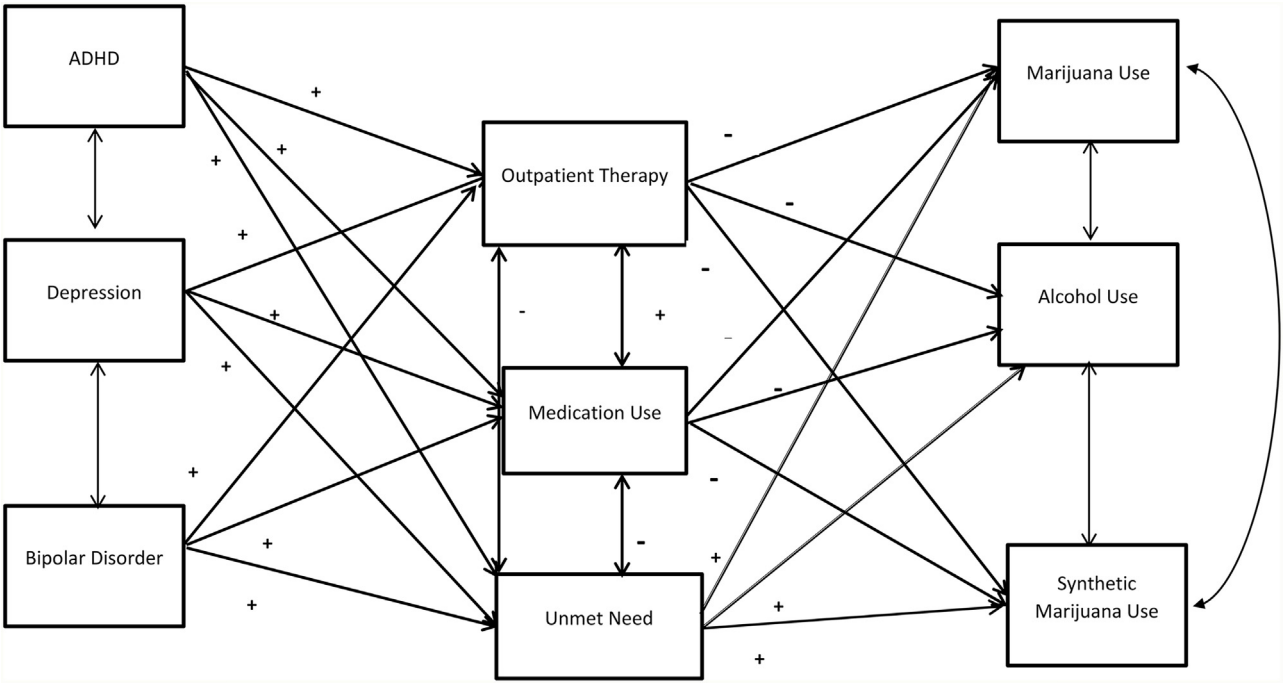

Fig. 1. Hypothesized Mediation Model.

In addition to high rates of substance use, homeless youth also have high rates of mental disorders. One study found that homeless youth were six times more likely to suffer from a mental disorder compared to youth in the National Comorbidity Study (Whitbeck et al., 2004). Another study of homeless youth in Seattle ($n = 362$) found that 21% met criteria for major depression, 21% for bipolar disorder, and 32% for attention deficit disorder (Cauce et al., 2000). Substance use and mental illnesses frequently co-occur (Center for Behavioral Health Statistics and Quality, 2015) and homeless youth are at particularly high risk for experiencing comorbidities (Merscham et al., 2009). Researchers have found associations between drug use and depressive symptoms in homeless youth (Hadland et al., 2011) and noted high rates of substance use in combination with mental disorders (Merscham et al., 2009).

1.2. Self-medication

The self-medication hypothesis advances that one reason people use substances is to cope with mental health symptoms (Khantzian, 1985; Klee and Reid, 1998) and with negative circumstances in their lives (e.g., mental illness) (Christiani et al., 2008). This hypothesis suggests that people choose specific substances due to their effects in order to target specific symptoms they experience. There is some indication that homeless youth use substances as a coping mechanism. In a qualitative study of homeless youth (ages 18–24) in Los Angeles, participants identified substance use as a strategy for coping with physical and psychological pain and mental health diagnoses (Christiani et al., 2008). In a sample of homeless youth (age 14–25) in the United Kingdom where 82% indicated a mental health diagnosis, Klee and Reid (1998) found that 71% endorsed using drugs as a coping mechanism. A study of 182 homeless youth (ages 16–25) in Denver, Colorado found that almost the entire sample (98.4%) met *DSM-IV-TR* criteria for one or more mental disorders and findings support differential substance use related to mental health diagnoses. Those with bipolar disorder reported a stronger preference for multiple substances, and youth with posttraumatic stress disorder indicated a preference for heroin (Merscham et al., 2009).

1.3. Mental health service use in homeless youth

An extension of the self-medication hypothesis is that people are not only using illegal substances to manage symptoms but may be doing so instead of using formal treatments. For homeless youth with mental disorders, substance use may serve as a substitute for mental health services. While some research has investigated the link between substance use and mental illness (i.e., Merscham et al., 2009), none has specifically investigated the relations between specific diagnoses and specific substances while considering mental health treatment. Research has found that, although homeless youth experience high rates of mental disorders, only about a third of those with mental disorders accessed mental health services in the previous six months (Hodgson et al., 2014). Barriers to mental health service use include personal factors such as motivation, program factors such as flexibility, and systemic factors such as stigma, financial barriers, and accessibility and availability of services (Christiani et al., 2008; Kozloff et al., 2013).

In the absence of formal treatment, youth may turn to substances. The stigma associated with mental health treatment and with homelessness itself may also contribute to young people turning to substances to manage symptoms rather than connecting with formal public services (Ha et al., 2015). Programs that offer dual-diagnosis treatment are limited and difficult to access, providing an additional barrier. Little evidence, however, shows whether those who successfully access treatment actually have reduced substance use. Given that the aim of mental health services is to reduce mental health symptoms, successfully receiving services would ideally result in less need for self-medication and translate into lower rates of substance use.

1.4. Purpose of study and hypotheses

While prior research has clearly documented high rates of both mental health problems and substance use among homeless youth, few studies have examined the relations between specific diagnoses and use of particular substances. Furthermore, to our knowledge, none has examined whether mental health service