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Youth Substance Use in a Context of Family Homelessness

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Abstract

Objective—This study examines the relationship between family processes and youth substance use debuts among a sample of youth residing in urban family homeless shelters.

Method—Data regarding shelter experiences, youth and family characteristics, and the use of three substances (i.e., cigarettes, alcohol, and marijuana) were gathered from a sample of youth (11–14 years) and their respective parents residing in an urban family homeless shelter system. Multinomial logistic regression analysis was used to examine the influences on youth substance use.

Results—Of the 198 youth included in the statistical analysis, 72% ($n=143$) reported no substance use debuts, while 18% ($n=35$) indicated one and 10% ($n=20$) indicated two to three substance use debuts. Within the final model, greater substance use debut was associated with being older (13–14 vs. 11–12; $OR=7.5$; 95% $CI=1.8–30.9$) and stressors exposure ($OR=4.8$; 95% $CI=1.5–14.7$). Furthermore, youth of adult caretakers that reported low levels of the three family processes considered were almost four and a half more likely ($OR=4.4$; 95% $CI=1.2–16.5$) to have made two to three substance use debuts.

Conclusions—Family processes may be a particularly important intervention target toward reducing the rate of substance use among youth residing in urban family homeless shelters.

1.1 INTRODUCTION

In recent years, the number of prevention programs meant to decrease substance use among homeless youth have increased substantially (Slesnick, Dashora, Letcher, Erdem, & Serovich, 2009). However, the majority of studies focus on substance use among the population of homeless youth that reside on the streets after having runaway or been forced to leave their home (e.g., Chen, Tyler, Whitbeck, & Hoyt, 2004; Tyler & Johnson, 2006; Van Leeuwen, Hopfer, Hooks, White, Petersen, & Pirkopf, 2004). However, there is relatively little comparable research regarding youth that reside in homeless shelters with their families, in spite of the fact that there are currently about 600,000 families across the United States are homeless (National Alliance to End Homelessness, 2009), with a steady increase in these figures in recent years (U.S. Department of Housing and Human Services, 2009). This lack of research presents a number of challenges to the field, including a lack of findings that may help inform the design of treatment and prevention programs designed for youth and families residing in homeless shelters.

The aim of the current study is to examine the relationship between family processes and substance use among a sample of early adolescent youth residing in urban homeless shelters. A substantial body of research describes the strong connection between family context variables on youth substance use over time (Bailey, Hill, Oesterle, & Hawkins, 2009; Masten, Hubbard, Gest, Tellegen, Garmezy, & Ramirez, 1999; Werner & Smith, 1992). These findings have led to family-focused interventions meant to bolster protective family factors as a means of substance use prevention for youth (Gorman-Smith, Tolan, Henry, Quintana, Lutovsky, & Leventhal, 2007; Jamieson & Romer, 2003; National Institute on

Drug Abuse, 1997). However, all of these studies have been conducted with samples of stably housed youth and families. Subsequently, the relationship between family processes and substance use for youth whose family is experiencing an episode of homelessness leaves some uncertainty as to whether and what types of family-focused interventions may be appropriate as a means to decrease substance use among youth. The current study examines the relationship between family processes and substance use among youth residing in an urban family homeless shelter. These data may be used to inform family-focused substance use prevention interventions in the future.

1.1.1. Substance Use among Youth

Substance use, including tobacco and alcohol use, presents a significant threat to youth well-being (). Adolescent cigarette smoking has consistently been linked to psychiatric problems in youth, including major depressive disorder, disruptive behavior disorders, and other substance addiction problems (e.g., Brown et al. 1996; Duncan & Cornelius, 2004; Grucza & Bierut, 2006). Alcohol consumption among persons aged 12--20 years contributes to the three leading causes of death (unintentional injury, homicide, and suicide) in this age group in the United States and is associated with other health-risk behaviors, including high-risk sexual activity, the use of other substances, and aggressive behavior (Miller, Naimi, Brewer, & Jones, 2007). Marijuana is one of the most prevalent illicit substance used by youth and marijuana use puts youth at increased risk for delinquency, school failure, physical and psychological problems (Rey, Martin, & Krabman, 2004;).

Furthermore, prior studies highlight that the use of multiple substances in early adolescence puts youth at-risk for chronic drug and alcohol addictions in adulthood (Biglan, Brennan, Foster, & Holder, 2009). Thus, the combined use of substances in early adolescence may compromise the well-being of an individual across their lifespan as substance abuse problems in adulthood have clearly been linked to lower levels of functioning and poorer educational and occupational attainment (Ackerman, Zuroff, & Moskowitz, 2000), risky sexual practices (Park, Mulye, Adams, Brindis, & Irwin, 2007), mental health problems (Windle & Windle, 2001), adult crime (Kosterman, Graham, Hawkins, Catalano, & Herrenkohl, 2001), and increased mortality (Park, Mulye, Adams, Brindis, Irwin, 2007).

Recent analysis underline that the use of tobacco, alcohol, and illicit drugs share a common natural history, as well as determinants of use, dependence, and addiction (McLellan, Lewis, O'Brian, & Kleber, 2000; Di Chiara, 2000). Furthermore, studies have shown that the incidence of first substance use increases rapidly up to the age of 15 years, when stabilization occurs (Kandel and Yamaguchi, 1993). Subsequently, universal prevention programs implemented in school settings for early adolescent youth are recognized as an effective strategy in preventing or delaying substance use by youth (UNICRI, 2003). The youth of families residing in homeless shelters may be significantly less likely to benefit from these school-based programs, as homeless youth are more likely than low-income housed youth to experience irregular school attendance, absenteeism, and multiple school placements (Anooshian, 2005; Gewirtz & Edleson, 2007). Simultaneously, homeless youth are more likely to experience several adverse life events such as hunger, high exposure to stressors, maltreatment (Anooshian, 2005; Gewirtz & Edleson, 2007), parental substance abuse, and/or parental mental illness (Bassuk et al., 1996), and psychiatric disorders (Vostanis, 2001), which are all documented risk factors of youth substance use (Nunes, 2010).

In light of the presence of these formidable risk factors for substance use, the design of effective prevention programs that can be delivered to youth residing in homeless shelters is essential. These programs not only represents an opportunity to provide youth with the information that they may have missed due to irregular school attendance, but also to deliver

additional programming tailored to the specific needs of youth residing in family homeless shelters. However, there is very little research that examines substance use among youth residing in shelters, resulting in a small amount of empirical work that can inform clinicians, researchers, and administrators, on the development of prevention programs for this population. Thus, the current study attempts to meet the need for research that identifies risk and protective factors regarding substance use for youth residing in urban family homeless shelters.

1.1.2 Family-focused Prevention Programs

A series of family-based prevention programs have been shown to effectively reduce the rate of substance use among high-risk youth through a focus on strengthening parenting processes (Gorman-Smith, Tolan, Henry, Quintana, Lutovsky, & Leventhal, 2007; Jamieson & Romer, 2003; National Institute on Drug Abuse, 1997). These programs recognize that adolescence is a developmental period that represents substantial risk for maladaptive behavioral outcomes, such as substance use (Hawkins, Catalano, & Miller, 1992). Furthermore, these programs are informed by existing research indicating that a set of family factors have been linked to youth functioning (Kumpfer & Alvarado, 1998).

Although research has shown *parenting practices* are significant predictors of youth adjustment and resilience in high-risk children (e.g., Bailey, Hill, Oesterle, & Hawkins, 2009; Masten, Hubbard, Gest, Tellegen, Garmezy, & Ramirez, 1999; Werner & Smith, 1992) it is important to note that this body of research does not focus on youth whose families are experiencing disruption in housing. Research remains scarce regarding family processes and youth outcomes associated with homelessness. This is surprising, as parenting practices themselves may be effected by factors associated with homelessness (Gewirtz, DeGarmo, Plowman, August, & Realmuto, 2009). Specifically, research has recognized that the nature of the homeless shelter itself may have an effect on parenting practices (Koblinsky, Morgan, & Anderson, 1997). Thus, it would not be appropriate to generalize findings regarding how family processes among housed families impact substance use outcomes.

1.2 MEHODS

1.2.1 Sample

Data used in the current study were gathered at baseline as part of the HOPE (HIV Outreach for Parents and Early Adolescents) Program study. The HOPE Program study examines youth and family outcomes associated with family-based prevention strategies in urban family homeless shelters. Data were gathered from a sample of 204 youth aged 11 to 14 years nested within family shelters. Data included adult caregiver reports of family process characteristics, child mental health, as well as youth reports of stressors, the number of substance use, and exposure to sexual risk situations.

In terms of racial/ethnic background, 42% (n=86) of adult caregivers described themselves as Hispanic/Latino, 47% (n=96) described themselves as Black, and 11% (n=22) described themselves as a Black/Hispanic racial/ethnic mix or other. Over ninety percent (92%, n=188) of the sample of adult caregivers was female. The average age of adult caregivers was 38.4 (SD = 6.8) years old. Adult caregivers reported that 18% (n=37) had an 8th grade education or less, 27% (n=55) had some high school, 26.3% (n=53) had a high school/GED diploma, 18% (n=37) had some college, and 5.4% (n=11) reported that they had completed college. Six percent of caregivers responded that they had completed post-college education or did not respond. Adult caregivers reported their marital status as being 57% (n=116) single, 24% (n=51) married/common law marriage, 18% (n=37) divorced/separated/

widowed. Fifty-seven percent ($n=116$) of adult caregivers reported that this was their first time staying in a shelter.

Children described their racial/ethnic background as 40% ($n=81$) 78 Hispanic/Latino, 43% ($n=88$) Black, and 17% ($n=35$) described themselves as a Black/Hispanic racial/ethnic mix or other. Fifty-five percent ($n=112$) of the sample of children was male and 45% ($n=92$) female. The average age of children was 12.8 ($SD = 1.2$) years old. Within the current sample, 198 youth provided data regarding substance use. Thus, six youth from the sample of 204 were not included in the statistical analysis since data regarding the study outcome variable was missing. In end, 198 youth (97%) from the total sample were included in statistical analysis.

1.2.3 Measures

Youth and family demographic characteristics—Demographic information was gathered from youth and parents concerning age, race, gender, and country of origin, as well as family composition and structure, educational level of parent figures, parental employment history, residential moves and changes in child's educational placement. This was done using the CHAMP Demographic Questionnaire. (McKay, Coleman, Paikof, Baptiste, Madison, & Scott, 2000)

Shelter related variables—A series of questions were presented to youth in order to capture their shelter related experiences. This measure included items such as, "Is this your first stay in the shelter system," "Do you have friends at the shelter," "Do you feel safe at the shelter?", and "Are there things for people your age to do at the shelter?"

Parent mental health need—Parent mental health was assessed using the Brief Symptom Inventory (BSI; Derogatis, 1993). This measure yields a Global Score Index (GSI), as a measure of global psychological distress (yes/no). Among a non-clinical adult sample, such as those involved in the current study, t -scores equal to or greater than .63 represent a clinically significant amount of global psychological distress.

Within family support—Within family support was measured via parent report on a 6-item subscale from the Family Assessment Measure (Tolan, Florsheim, McKay, & Kohner, 1993). Items reflecting this construct are measured along a 4-point Likert-type scale (1=strongly *disagree*, 4=strongly *agree*) with higher score indicating more within family support. An example of an item is "I listen to what other family members have to say, even when I disagree". The subscale score is determined by adding the values of each contributing item and then dividing the summed number by the number of items. Alpha for the current sample is .88. In order to generate odds ratios, the continuous within family support scores ($M=3.44$, $SD=.62$, range=1.0–4.0) were dichotomized by scores representing low within family support (i.e., the bottom third of scores) vs. high within family support (i.e., the remaining two-third of scores).

Low parent-child communication—Parent-child communication regarding "hard to discuss" topics was also measured via parent report on a subscale from the Family Assessment Measure (Tolan, Florsheim, McKay, & Kohner, 1993). This subscale contains 7 items measured on a 4 point Likert-type scale (1=*A lot*, 4= *we don't talk about this*). Each item asks "*How often do you talk with your parents/child about*" topics such as: alcohol, drugs, HIV/AIDS, sex, STD's, gangs, and puberty. The possible range of this subscale is 7 to 28 with higher scores representing a greater frequency of family communication. A score is determined by adding the values of each contributing item and then dividing the summed number by the number of items. Alpha for the current sample is .91. In order to generate

odds ratios, the continuous parent-child communication scores ($M=3.14$, $SD=.80$, range=1.0–4.0) were dichotomized into scores representing low parent-child communication (i.e., the bottom third of scores) vs. high parent-child communication (i.e., the remaining two-third of scores).

Parental monitoring—Levels of parental monitoring were measured via parent report on the Parenting Skills Questionnaire (Tolan & Gorman-Smith, 1991). This 30-item parent report contains four subscales: discipline effectiveness, positive parenting, parent monitoring, and child compliance. Only parental monitoring scale is considered here. This subscale assesses reports of the ways parents keep track of children's whereabouts, who they are with, household rules, and how often they are left in charge of other children. This instrument has 17 items with a 4-point scale (*Always true* to *Always false*) with higher scores representing a greater degree of parental involvement and supervision. Subscale score is determined by adding the values of each contributing item and then dividing the summed number by the number of items. Alpha for the current sample = .75. In order to generate odds ratios, the continuous parental monitoring scores ($M=3.49$, $SD=.41$, range=2.1–4) were dichotomized into by scores representing low monitoring (i.e., the bottom third of monitoring scores) vs. high monitoring (i.e., the remaining two-third of scores).

Cumulative risk (low parental monitoring, within-family support, and child-parent communication)—A cumulative risk variable was created that identified the youth of adult caretakers who reported scores that fell into the low categories for parental monitoring, within-family support, and child-parent communication, relative to youth of parents that were not in the lower distribution of scores for at least one of these subscales.

Racial socialization beliefs—Racial socialization beliefs were measured via youth report on the Scale of Racial Socialization for African American Adolescents (SORSA-A, 20), which consists of 37 items measured along a 4-point Likert-type scale (1 = *strongly disagree*, 4 = *strongly agree*). While this scale was originally used with African American youth, within the current study it has been adapted for use among youth of color in general where the reference to a *Black* or *African American* racial identity was changed to the term a *person of color*. For example, one scale items that stated "Getting a good education is still the best way for a Black child to survive racism," was modified to read "Getting a good education is still the best way for a child of color to survive racism." This modification was done to allow youth of color (e.g., Latino youth) who do not identify themselves as Black or African American to express their level of racial socialization belief. In the current study, in order to generate meaningful odds ratios, the continuous scores (alpha=.74, $M=3.4$, $SD=.6$, range=1.0–4.0) derivative of the SORSA-A measure were dichotomized in order to reflect low (i.e., the bottom third of scores) vs. moderate to high levels (i.e., the upper two-thirds of scores) of racial socialization beliefs. The alpha for current sample = .71.

Child Mental Health Need—Parent data were gathered via the Strengths and Difficulties questionnaire (Goodman, 1997; Goodman, Meltzer, & Bailey, 1998) to tap the construct youth mental health need. This measure incorporates scales tapping into youth emotional symptoms, conduct problems, hyperactivity, peer problems, and yields an overall score indicating mental health need (yes/no), which was used in the current study.

Stress Exposure—Youth reports provided at baseline were used to assess Stress Exposure via a 7-item subscale from the Family Stress Scale (Tolan, Miller, & Thomas, 1988). Within this scale, youth were asked to identify whether they or another member of their family experienced a series of potentially stressful events. Examples of items in the subscale included "A family member was stabbed or shot", "I saw people dealing drugs in

the neighborhood” with higher scores indicating a greater exposure to stressors. In order to generate odds ratios, scores ($M=1.65$, $SD=.57$, $range=1.0-3.57$) were dichotomized into scores representing the top third of youth exposed to stressors, and the remaining two-third of scores.

Sexual Behavior—Sexual behavior was measured according to whether youth had or had not been in a sexual possibility situation (SPS) via a structured interview for pre- and early adolescents, developed by Paikoff (Paikoff, 1995; Paikoff, Parfenoff, Williams, & McCormick, 1997). Specifically, youth were asked five (yes/no) questions regarding the time they may have spent in unsupervised situations. Youth were identified as having been in a SPS if a “yes” response was given to the item “Are you ever together with boys and girls, **without** any grown-ups: Inside a private place (e.g., somebody’s home or apartment, an apartment building that is empty or someplace else no one is likely to find you or check on you all the time?). Otherwise youth were coded as not having been in a situation of sexual possibility.

Youth suicidal ideation—Youth reports of suicidal ideation were measured via a single item on the Child Depression Inventory (Finch, Saylor, Edwards, and McIntosh, 1987). The CDI contains 27 items, each of which consists of statements where youth indicate the statement that best describes their feelings over the past two weeks. Among these items is an option where youth rate their thoughts concerning suicide, with the available responses being: 1) I do not think about killing myself; 2) I think about killing myself but I would not do it; and 3) I want to kill myself. Youth who indicated either item 2 or 3 at baseline were coded as evidencing suicidal ideation, whereas youth that indicated item 1 were coded as not evidencing suicidal ideation.

Substance Use—Substance use among youth was measured via three items from *Monitoring the Future* survey (Johnstone et al., 1993) which provides an Johnstone onset and frequency of substance use. Specifically, youth were asked “Have you ever tried cigarette smoking, even one or two puffs?” (yes/no), “Have you ever had a drink of alcohol, other than a few sips?” (yes/no), and “Have you ever used marijuana?” (yes/no). These items were summed to create a variable that indicated the number of substances youth had used (possible range: 0–3). Next, this variable was dichotomized into three subcategories: 1) Youth who reported having used no substances; 2) Youth who reported using one substance; and 3) Youth who reported using two to three substances.

1.2.2 Analysis

There were three steps involved in the statistical analysis. First, we used bivariate tests to examine if youth substance use was associated with demographic characteristics. Second, we examined the relationship between each independent variable and youth substance use via single predictor logistic regression. All demographic and independent variables which were significantly related to the outcome variable at a level no greater than .05 at the bivariate level were entered into the final multivariate model. Next, a multinomial logistic regression model was used to examine the relationship between multiple independent variables and youth substance use. Within the multinomial logistic regression model, youth demographic characteristics (i.e., age, race/ethnicity, and age) were controlled for. Checks for multicollinearity among study variables revealed no significant problems (Menard, 1995).

1.3 RESULTS

These items reflecting shelter characteristics are presented below in Table 1. Bivariate analysis between all shelter related variables and youth reports of suicidal ideation indicated no significant relationships.

Prevalence of substance use among youth residing in urban family homeless shelters

Of the 198 youth included in the statistical analysis, 72% ($n=143$) indicated no substance use, while 18% ($n=36$) indicated having used one substance and 10.1% ($n=20$) indicated having used two to three substances. Of the thirty-six youth that indicated having used one substance, 31% ($n=11$) indicated a positive response to having tried cigarette smoking, while 68% ($n=25$) indicated a positive response to having used alcohol. Of the twenty youth that indicated having used two to three substances, 30% ($n=6$) reported using all three substances, while 70% ($n=14$) reported having used two substances. Of the fourteen youth that had used two substance, 57% ($n=8$) reported using cigarettes and alcohol, while 43% ($n=6$) reported having used alcohol and marijuana use.

Bivariate analysis revealed that substance use was not significantly associated with youth demographic factors, including youth gender, $X^2(2)=1.72$, $p=.42$, and race/ethnicity, $X^2(6)=5.62$, $p=.46$. However, analysis did indicate that youth did differ significantly by age regarding substance use, $F(2,195)=6.55$, $p<.01$. A Bonferroni Post Hoc test revealed that the mean age for youth who had reported having used two to three substances ($M=13.73$, $SD=.78$) was significantly higher in relation to youth who reported using no substances ($M=12.71$, $SD=1.21$) and youth that had used one substance ($M=12.74$, $SD=1.26$). Subsequently, in order to examine the effects of youth age more clearly on the outcome variable, youth age was dichotomized (i.e., below the mean age vs. equal to or greater than the mean age) and included as an independent variable in the final multivariate model.

1.3.1 Single-predictor Multinomial Regression of Independent Variables in Relation to Substance Use

The bivariate relationships between the family and youth level influences and substance use are presented in table 2. In comparison to youth who reported no substance use, those who reported using two to three substances were over seven times more likely ($OR=7.20$, 95% $CI=2.02-25.65$) to be older than the mean age (12.85 years). Regarding child level factors, again in comparison to youth who reported no substance use, those who reported having used two to three substances were almost four times ($OR=3.68$, 95% $CI=1.38-9.79$) more likely to report suicidal ideation, almost five times more likely ($OR=4.78$, 95% $CI=1.78-12.85$) to report high levels of stressors, and almost five times ($OR=4.81$, 95% $CI=1.82-12.68$) more likely to report spending time in situations of sexual possibility. In addition, youth mental health need was unrelated to prior substance use.

Lastly, regarding family level factors, parent mental health need, parental monitoring, parent-child communication, within family support, were all unrelated to substance use at a statistically significant level. However, the cumulative risk variable which identified the youth of parents who indicated scores in the lower third of values on the parental monitoring, parent-child communication, and within family support scales was significantly related to youth substance use. Specifically, in reference to youth with no prior substance use, those who reported having used two to three substances were almost five times more likely ($OR=4.96$, 95% $CI=1.70-14.49$) to have parent ratings where all three scores fell into the low categories of all three family processes noted above.

1.3.2 Multinomial Logistic Regression Analysis of Youth Substance Use

Next, all variables that were found to be significantly related to the outcome variable in step 2 were entered by block into a hierarchical logistic regression model to determine their association with youth substance use at the multivariate level. The results of the multinomial logistic regression model are summarized in Table 3.

Results indicate that the full model was statistically significant [X^2 (14, $N = 198 = 43.20$, $p < .001$]. The strength of the association of the individual variables with youth reports of substance use was examined by evaluating the statistical significance of individual coefficients and their odds ratios within the context of the full hypothesized model. Within the final model, in comparison to youth who reported no substance use, youth who had used two to three substance were over seven times more likely ($OR = 7.53$; 95% $CI = 1.83-30.89$) to be older than the mean value age of youth in this sample (12.85 years), to indicate a high level of exposure to stressors ($OR = 4.75$; 95% $CI = 1.54-14.69$). Furthermore, youth of adult caretakers that reported difficulties with three family processes considered were almost four and a half more likely ($OR = 4.41$; 95% $CI = 1.18-16.51$) to have used two to three substances.

1.4 DISCUSSION

This study was designed to examine the influence of family processes on youth substance use among a sample of youth residing in family homeless shelters. This relationship was explored in order to inform family-focused prevention programs, which may be a means to bolster protective family processes. The results of our multivariate statistical analysis supported the premise for family-based prevention, as youth of parents who reported more strengths.

It is important to note that bivariate statistical analysis indicated individually low levels of specific family processes were not associated with the number of youth substance debuts. The degree of youth substance use was explained by the cumulative variable that identified youth of parents that reported low scores within each family process variable. Furthermore, weak family processes were not related to youth reporting using one substance, but only to youth reporting having used multiple (i.e., 2 to 3) substances. These findings may speak to a high needs subgroup of youth and families within an already vulnerable population of youth and families residing in the shelter system. Specifically, there appears to be a subgroup of families who simultaneously face a breakdown in several areas of family processes, as well as elevated numbers of substances used by youth. Future research, as well as tests of family-focused prevention programs should consider this high needs subgroup of youth and families within the shelter system, so that the youth of families that are most at risk of elevated substance use are appropriately targeted.

The majority of independent variables evidenced similar relationships with the outcome variable, to existing findings described in the literature which relate to housed samples of youth and families. Specifically, at the multivariate level, a greater likelihood of youth reporting having reported prior substance use was linked to youth age, exposure to stressors, as well as weak family processes.

The finding that low levels of family processes is linked to youth reporting having used a greater number of substances is not surprising, as a steady body of research supports this relationship among families and youth that are not homeless. However, very little is understood regarding how the specific context of residing in a homeless shelter may impact these family processes. Specifically, recent findings have described how homeless families are significantly more likely, relative to non-homeless families, to experience a range of

psychosocial risk factors (e.g., mental health difficulties, substance abuse problems, and high exposure to stressors/stressors) that are associated with impairments in parenting effectiveness (Gewirtz, DeGarmo, Plowman, August, & Realmuto, 2009). Therefore, a detailed analysis needs examine exactly what are the factors that may compromise family processes in the context of homelessness and how can programs be tailored to these variables among youth and families.

Our study has several limitations that should be noted. First, the study incorporates a cross-sectional design. Although our results indicate a link between family processes and youth substance use, causality cannot be inferred. Second, the sample size is relatively small and the distribution of youth across debut categories unequal. Furthermore, although we gathered some data regarding respondent's perceptions and experiences in shelters (i.e., the items presented in Table 1), these data were not comprehensive. The characteristics of different homeless shelters, as well as the communities they are located in, can be quite diverse. The current research would have benefited from a more detailed description of the specific characteristics of each shelter (e.g. age restrictions, etc.) and how they may relate to the number of substances the youth reported having used.

Additionally, a more detailed description of the history each family had with the shelter system (e.g., the precise number of housing episodes, number of years spent in shelters, etc.) would have also been valuable considerations for this analysis. However, these data were not available for the current study. Lastly, although the majority of measures utilized in the current study had adequate internal consistency and face validity, estimates of test-retest and reliability were not available for our population because so little research exists regarding homeless families.

These limitations should be considered relative to the significant strengths of the current study. First, the current data were not limited by common method variance, as reports of family processes were gathered from parents and data regarding youth substance use were reported by the youth. Second, this is one of the very few studies that examine outcomes for youth and families residing in family homeless shelters. Third, the similarity of our findings with the findings from previous studies with housed youth and their families suggests that family-based prevention may be appropriate with some adaptation around issues related to homelessness.

In sum, our findings have several implications for family-focused prevention programs addressing youth substance use. First, family processes targeted by these programs appear to play an important role in explaining the number of substance use among youth residing in family homeless shelters. Therefore, this study suggests that family-focused prevention programs that focus on bolstering family processes as a means of reducing youth substance use would be appropriate and useful in this setting. Second, the impact of the unique contextual traits associated with homelessness on family processes should be considered in such programs. Third, research and prevention programs conducted with this population should consider the needs of a highly vulnerable subgroup of youth and families who may evidence a breakdown in multiple areas of family life, as well as youth who have used multiple substances.

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Table 1

Description of Shelter related variables

Items	Yes (%)	No (%)
First time staying in a shelter	115 (57.8%)	84 (42.2%)
Do you have friends at the shelter?	169 (83.7%)	33 (16.3%)
Do you feel safe at the shelter?	171 (85.5%)	29 (14.5%)
Are there things for people your age to do at the shelter?	178 (88.1%)	24 (11.9%)
Are there things for families to do together at the shelter?	151 (75.5%)	49 (24.5%)
Is there a staff person that you like?	135 (67.2%)	66 (32.8%)
Are there rules that you have to follow at the shelter?	195 (96.5%)	7 (3.5%)
Do you have trouble following these rules?	54 (27.1%)	145 (72.9%)
Do you get in trouble for not following rules at the shelter?	104 (52.5%)	94 (47.5%)
Does the staff at the shelter help you and your family?	162 (81.4%)	37 (18.6%)

Table 2

Bivariate Results of Multinomial Logistic Regression of Substance Use Debut

Independent Variables	1 substance debuts		2–3 substance debut	
	B (SE)	OR (95% CI)	B (SE)	OR (95% CI)
Child Age				
12.85 (mean age)	.07 (.38)	1.07 (.51–2.25)	1.97 (.65)	7.20 (2.02–25.65)**
Child Level Risk Factors				
Mental Health Need	.03 (.46)	1.03 (.42–2.54)	1.12 (.78)	3.06 (.67–13.97)
Suicidal Ideation	.29 (.46)	1.33 (.54–3.27)	1.30 (.50)	3.68 (1.38–9.79)**
High Exposure to Stressors	.77 (.39)	2.17 (1.02–4.63)	1.57 (.50)	4.78 (1.78–12.85)**
Situation of Sex. Possibility	.59 (.42)	1.82 (.79–4.10)	1.57 (.50)	4.81 (1.82–12.68)**
Family Level Risk Factors				
Parent Mental Health Need	–.14 (.40)	.87 (.40–1.90)	–.17 (.50)	.84 (.31–2.26)
Low Parental Monitoring	–.77 (.45)	.46 (.19–1.13)	.61 (.48)	1.84 (.72–4.72)
Low Communication	.52 (.39)	1.68 (.78–3.63)	.93 (.49)	2.53 (.98–6.53)
Low Within Family Support	–.11 (.40)	.89 (.41–1.94)	.74 (.48)	2.09 (.81–5.38)
Low Family Processes (all 3)	–.58 (.78)	.56 (.12–2.58)	1.60 (.55)	4.96 (1.70–14.49)**

Notes: Reference category for substance abuse debut is no substance use debuts.

Table 3

Multivariate Results of Multinomial Logistic Regression of Substance Use Debut

Independent Variables	1 substance debuts		2–3 substance debut	
	B (SE)	OR (95% CI)	B (SE)	OR (95% CI)
Age				
12.85 (mean age)	-.08 (.40)	.92 (.42–2.98)	2.02 (.72)	7.53 (1.83–30.89) **
Child Level Risk Factors				
Suicidal Ideation	.16 (.48)	1.17 (.46–2.98)	.93 (.58)	2.53 (.82–7.86)
High Exposure to Stressors	.69 (.40)	1.99 (.91–4.37)	1.56 (.58)	4.75 (1.54–14.69) **
Situation of Sex. Possibility	.65 (.46)	1.91 (.78–4.66)	.92 (.56)	2.52 (.84–7.54)
Family Level Risk Factors				
Low Family Processes (all 3)	-.61 (.80)	.54 (.11–2.62)	1.48 (.67)	4.41 (1.18–16.51) *

Note: Reference category for substance abuse debut is no substance use debuts.

*
p<.05**
p<.01