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Psychiatric Symptoms, Substance Use, Trauma, and Sexual Risk: A Brief Report of Gender Differences in Marijuana-Using Juvenile Offenders

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Abstract

Given the continued increases in proportion of young girls entering the juvenile justice system, identifying factors to incorporate into gender responsive programming for these youth is of paramount importance to improving their behavioral health and legal outcomes. Psychiatric factors, including sexual abuse, marijuana use and HIV/STI sexual risk behaviors have been studied, but among detained youth. With increased emphasis on diverting young girls from incarceration, informing prevention and intervention programs about girls' psychiatric symptom profile and co-occurring risk behavior while in the community, but court-involved is of timely relevance. Therefore preliminary associations, by gender, between psychiatric symptoms, history of sexual abuse, substance use and HIV/STI sexual risk behavior among a pilot sample (N=60) of court-involved, non-incarcerated (CINI) youth were explored. Results from chi-square and t-test analysis indicate important gender differences. Girls have higher rates of depression and trauma symptoms, report higher rates sexual abuse and sexual risk behavior. These results provide some initial data related to risk factors for community supervised samples that can be used to begin to inform gender-specific juvenile justice programming.

Keywords

Psychiatric symptoms; trauma; HIV risk; gender and juvenile justice youth

Studies have shown that juvenile offenders are at increased risk for psychiatric problems, co-occurring substance use and have higher rates of trauma exposure than their non-offending peers (Abram, Teplin, McClelland, & Dulcan, 2003; Teplin, Mericle, McClelland, & Abram, 2003; Teplin, Elkington, McClelland, Abram, Mericle, & Washburn, 2005; Puzzanchera, Adams, & Hockenberry, 2012). Among juvenile offenders, there are also gender differences in types of psychiatric diagnoses (e.g., girls are more likely to have internalizing disorders) (Wasserman, McReynold, Schwalbe, Keatng, & Jones, 2010) and rates of trauma exposure (e.g., girls report higher rates between 70-90%) (Zahn, M., et al., 2010; Zahn, Day, Mihalic, & Tichavsky, 2009). Marijuana use and sexual risk taking commonly co-occurs with

psychiatric difficulties and a history of trauma predisposes many young girls to engage in HIV/STI sexual risk behaviors. Data suggest that juvenile offenders are at increased risk for HIV/STI acquisition due to high rates of unprotected sexual behavior, substance use with sex and multiple partners (Abram, Teplin, McClelland, & Dulcan, 2003; Teplin, Mericle, McClelland, & Abram, 2003; Wasserman, McReynold, Schwalbe, Keatng, & Jones, 2010). The association between psychiatric problems, trauma, substance use and HIV/STI risk behaviors and how those associations may differ according to gender has been explored in samples of detained youth (Wasserman, McReynold, Schwalbe, Keatng, & Jones, 2010). However, less is known about the relationships between psychiatric factors, including history of trauma, substance use and sexual risk behaviors among community-dwelling court-involved youth. As they are not detained or incarcerated, this population may have increased risk as there is greater opportunity to engage in marijuana use and sexual risk behaviors. Furthermore, given higher rates of trauma and differing psychiatric needs of juvenile offending girls than their male counterparts (Zahn, M., et al., 2010; Zahn, Day, Mihalic, & Tichavsky, 2009), using data to inform gender-responsive programming for juvenile justice girls is of paramount importance to the field. While studies of youth diverted from incarceration of less prevalent than those with detained youth, the studies that do exist suggest that youth may have similar risk behaviors (Dembo, 2009). As such, this study is intended to be one of the first to outline this risk for community-supervised justice involved girls. Thus, we aimed to preliminarily explore gender differences in HIV/STI sexual risk behaviors and to understand how psychiatric symptoms and trauma exposure may be differentially associated with sexual risk for marijuana using Court-Involved, Non-Incarcerated (CINI) girls versus boys. We hypothesize that gender differences in psychiatric presentation, trauma and sexual risk, similar to those present detained/incarcerated samples, would exist in this group of justice involved community supervised youth.

Method

Study data were collected as part of the baseline assessment from a pilot efficacy trial of a family based HIV prevention intervention for marijuana using CINI youth (N=60).

Youth were eligible to participate if they 1) were 13 to 18 years old, 2) lived in the home of a primary caregiver, 3) their caregiver spoke English, 4) self-reported negative HIV status, 5) reported using marijuana at least 3 times during the 30 days prior to study enrollment. All participants were engaged in either the informed consent or assent process prior to study engagement. Additionally, all study procedures were approved by the institutional IRB.

Audio Computer-Assisted Self-Interview (ACASI) on laptop computers were used to collect data. This process occurred in the participant’s home or the family court in a private location that was away from the view of others during the time of data collection. All data were entered into SPSS and cleaned for analysis.

Measures used in this study include

Demographics questionnaire—This measure included basic demographic information such as gender, race/ethnicity and age.

Adolescent Risk Behavior Assessment—(ARBA: Donenberg, Emerson, Bryant, Wilson, & Weber-Shifrin, 2001): includes self-report of ever having vaginal intercourse, age of first sex, condom use at last sex, substance use at last sex, partner's use of substance at last sex, and number of sexual partners during the past 90 days. Data was also collected about lifetime substance use including lifetime history and past 30 day use of cigarettes, alcohol, marijuana and other substances.

Youth Self-Report—(YSR: Achenbach, 1995): is a 110 item self-report measure that is a general screen for psychiatric concerns during past 90 days. The measure includes scales such as including internalizing (e.g., depression and anxiety) and externalizing symptoms (e.g., attention and conduct) and post traumaticstress problems..

Childhood Trauma Questionnaire—(CTQ: Bernstein & Fink, 1998): using self-report assesses lifetime incidence of sexual abuse, physical abuse, emotional abuse, physical neglect, and emotional neglect.

C square, and t-test analyses were conducted to explore the relationship between gender and other study variables.

Results

Table 1 presents chi-square and t-test results, in addition to descriptive statistics, for study variables related to risk behaviors, psychiatric symptoms and trauma exposure.

Findings related to psychiatric symptoms and trauma exposure are found in Table 1. Girls overall psychiatric symptoms, as well as internalizing symptoms, were higher than boys. More specifically, girls scores on the following YSR DSM-IV and syndrome scales were higher than boys: withdrawn/depression ($t(49)=-2.65$, $p=.01$), thought problems ($t(49)=-2.61$, $p=.01$), affective problems ($t(49)=-2.67$, $p=.01$), ADHD problems ($t(49)=-2.37$, $p=.02$), OCD problems ($t(49)=-2.71$, $p=.01$), and PSTP ($t(49)=-2.98$, $p=.01$). Girls were also more likely to have experienced higher rates of total lifetime trauma and sexual abuse than boys. No differences were found between boys and girls in report of physical and emotional abuse and neglect.

Also included in Table 1 are the findings related to Substance Use and HIV/STI sexual risk behavior. All youth reported recent marijuana use, but girls reported higher rates of nicotine and over the counter/prescription drug use ("to get high") than boys. In terms of sexual risk, compared to boys, girls were more likely to have had self-reported lifetime vaginal intercourse, were less likely to have used a condom at last sex, and reported earlier sexual debut. While boys had a higher overall number of recent sex partners, girls reported higher rates of recent sex with partners under the influence of marijuana.

Discussion

Pilot findings suggest that marijuana using CINI girls may have different psychiatric, substance use and HIV prevention needs than CINI boys. Findings support prior research with detained samples indicating girls have higher rates of psychiatric (internalizing

symptom) distress and sexual abuse as well as research indicating that juvenile justice youth engage in high rates of unprotected sexual activity. However, to our knowledge, this is the first study to document psychiatric, substance use and HIV/STI sexual risk behavior differences in marijuana using CINI girls versus boys. Findings suggest that gender-responsive approaches to risk reduction for girls aimed at reducing co-occurring psychiatric and sexual risk behaviors is appropriate. This study focused on youth presenting with recent marijuana use and rates of reported marijuana use did not vary between genders. Additionally, no gender differences in other types substance use. This finding is noteworthy and suggests that within this marijuana using community-supervised justice sample girls may using a variety substances at the same rates as boys. Despite the similarities in substance use, this study found gender differences in psychiatric needs, sexual abuse, OTC/Rx drug use and sexual risk behavior. Furthermore, most girls in this sample report involvement in sex and indicated higher likelihood of engaging in unprotected sexual intercourse with a partner who was using marijuana, may increase risk for STIs and pregnancy.

These differences warrant further investigation and suggest that marijuana using girls may have different co-occurring treatment needs that their male counter-parts. Co-occurring disorders intervention for girls including the unique factors associated with substance use may yield improved outcome for this vulnerable subset of girls. While our small pilot study sample size restricted the use of inferential statistics, our findings can add to the growing body of evidence that suggest that gender-specific intervention that targets psychiatric and co-occurring sexual risk behaviors through a trauma-informed lens may also be warranted. Future research with larger sample sizes is needed to replicate findings and further explore these associations to inform development and testing of efficacious gender-responsive intervention.

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Table 1

Descriptive Statistics: Means, Standard Deviation, Percentage, Chi-Square and T-test, by gender

	Total (n=60) Mean (SD) or %(N)	Male (n=42) Mean (SD) or %(N)	Female (n=18) Mean (SD) or %(N)	t or χ^2	p-value
Demographics					
Age	15.54 (1.30)	15.62 (1.34)	15.40 (1.24)	.53	.60
Race (Caucasian)	73% (44)	69% (29)	80% (13)	.61	.34
Ethnicity (non-Latino)	79% (47)	83% (34)	80% (13)	.56	.75
Mental Health					
YSR Total Symptoms (t-score)	55.69 (10.11)	53.95 (10.39)	60.29 (7.93)	−2.06	.04*
YSR Internalizing Symptoms (t-score)	50.29 (8.82)	48.70 (8.92)	54.50 (8.65)	−2.14	.03*
YSR Externalizing Symptoms (t-score)	60.69 (10.88)	59.62 (11.73)	63.50 (7.80)	−1.14	.26
Childhood Trauma Questionnaire					
Total Trauma Score	48.93 (9.44)	43.70 (9.35)	49.13 (9.53)	−1.83	.05*
Sexual Abuse	6.12 (2.58)	5 (0)	7.9 (5.59)	−3.28	.01*
Emotional Abuse	8.35 (3.51)	7.71 (3.51)	8.80 (3.51)	−1.08	.31
Physical Abuse	7.33 (2.69)	6.13 (3.60)	6.26 (1.79)	.19	.85
Adolescent Risk Behavior					
Substance Use					
Ever Use Marijuana (yes)	88% (53)	87% (36)	93% (17)	.13	.75
Used Marijuana Last 30 Days (yes)	51% (31)	54% (22)	53% (9)	.01	.87
Ever Smoked Cigarettes (yes)	70% (42)	67% (28)	86% (14)	2.16	.05*
Cigarettes Last 30 Days	59% (35)	54% (22)	80% (13)	1.64	.12
Ever Used Alcohol (yes)	75% (46)	75% (31)	86% (15)	.95	.27
Used Alcohol Last 30 Days (yes)	31% (19)	26% (10)	53% (9)	.19	.61
Ever Used Club Drugs	12% (7)	10% (4)	20% (3)	1.34	.08
Ever Used Cocaine	3% (2)	3% (1)	6% (1)	.59	.46
Ever Used Heroin	0% (0)	0% (0)	0% (0)	-	-
Every Used OTC/Rx Medications	20% (12)	16% (6)	33% (6)	2.61	.04*

	Total (n=60) Mean (SD) or %(N)	Male (n=42) Mean (SD) or %(N)	Female (n=18) Mean (SD) or %(N)	t or χ^2	p-value
Sexual Behavior					
Lifetime Sexual Behavior (yes)	71% (43)	69% (27)	90% (16)	5.85	.01**
Condom Use Last Sex (yes)	50% (22)	54% (14)	46% (8)	2.50	.05*
Age 1st Sexual Intercourse	14.40 (.95)	14.60 (.88)	13.30 (1.03)	2.97	.01**
# of Partners Past 90 Days	1.79 (1.35)	2.35 (2.11)	1 (0.60)	2.14	.04*
Been/Gotten Pregnant (yes)	7% (4)	5% (2)	13% (2)	.64	.47
Substance Use and Sexual Behavior					
Any Drug Use Last Sex	36% (15)	34% (9)	40% (6)	.01	.68
Partner Used Any Drug Last Sex	36% (16)	31% (8)	50% (8)	1.80	.08
Alcohol Used Last Sex	5% (3)	5% (2)	6% (1)	.01	.70
Partner Used Alcohol Last Sex	7% (4)	5% (2)	13% (2)	.62	.39
Marijuana Use Last Sex	14% (6)	15% (4)	13% (2)	.25	.47
Partner Used Marijuana Last Sex	16% (8)	12% (3)	28% (5)	1.75	.03*

*p≤ .05

**p≤ .01