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Examining Trauma and Crime by Gender and Sexual Orientation among Youth: Findings from the Add Health National Longitudinal Study

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Abstract

LGBTQ youth, and in particular those of color, are significantly more at risk for experiencing trauma at home and in their community, having school difficulties including bullying and suspensions, and subsequently being involved with the juvenile and criminal justice systems. Research is limited in understanding the pathways these young people take toward youthful and young adult offending and incarceration. The national longitudinal Add Health study data were used to explain how trauma, sexual orientation (gay, bisexual), school experiences, gender, and race impacted juvenile and adult criminal activity and incarceration—looking at a trauma-delinquency-crime link. It was found that females were more likely to experience childhood trauma if they were a person of color, poor, or bisexual; and these traumatic childhood experiences were all direct predictors of adult criminal activity, as was being bisexual or gay.

While males were more likely to experience childhood trauma if they were a person of color or poor, but not if they were bisexual or gay, and these traumatic experiences and being bisexual (though not gay) also predicted juvenile delinquency, adult criminal activity, and adult incarceration. Implications and discussion of these and other researcher's findings are set forth, as well as recommendations.

Keywords

sexual orientation, gay, bisexual, trauma, gender, delinquency, incarceration

Introduction

Despite gains made across social and legal fronts for the LGBTQ community, many young people still struggle not only coming to terms with their sexuality but in so doing may face significant bias and discrimination in their families, schools, and other youth-serving institutions, including the courts. The greatest impact looks to be on LGBTQ youth who are poor and those of color (Heck, Poteat, & Goodenow, 2018; Wilber, 2015). These experiences, and their cumulative impact, ostracization, and isolation puts these young people at significant increased risk for many disparate problems. These include poor health and mental health, increased school exclusion and dropout, homelessness, delinquency and criminal activities, limited employment options, and incarceration in the criminal justice system (Himmelstein & Bruckner, 2011; Kosciw et al., 2014).

Many of these experiences are intertwined for LGBTQ individuals as they develop from children to young adults, making comorbidity of difficulties more of the norm (Howell, 2009). It is this cumulative impact over time of experiences like bullying and assault victimization, troubled home lives and abusive family members, growing up in poverty, school difficulties including suspension and expulsion, falling behind in learning, and dropping out of school, that gravely increase the risk for LGBTQ youth to be involved with the juvenile and criminal court systems (Mallett & Tedor, 2019).

Understanding and explaining these trajectories and predicting crime outcomes is difficult because of the multiple interplays of these experiences and risk factors (Thornberry, 2005). Over the past decade, research has convinced most policymakers that LGBTQ youth are not only many times more likely than their heterosexual peers to be victimized at home, school, and in their neighborhoods, but that they are also much more likely to end up in the juvenile and criminal justice systems (Irvine & Canfield, 2016; Meyer et al., 2017). It is only through understanding these pathways that LGBTQ youth

take to these nefarious outcomes that appropriate intervention steps and policy changes can be made to address the disparity.

This paper uses a national longitudinal survey of young people and their families (Add Health data) to research LGB (homosexual and bisexual) youth during their early family years, looks at the impact of trauma and school problems, and discerns how these experiences, as well as gender and race, explain offending behaviors, delinquency, and crime outcomes. This study builds upon an earlier review of LGB youth using Add Health data (Himmelstein & Bruckner, 2011) that looked at school expulsion, police stops, juvenile arrests and convictions, and adult arrests and convictions. Here, the investigation expands this and others research (Rosentel et al., 2020) by examining both homosexual and bisexual youth via gender and race, through trauma, delinquency, crime, and incarceration.

LGBTQ Youth

Families/trauma. A review of the literature found that approximately one-third of young people experience parental acceptance when they disclose their LGBTQ identity, one-third experience parental rejection, and the remaining one-third do not disclose by their young adult years (Rosario & Schrimshaw, 2013). While investigations are limited looking at race/ethnicity, one study found parental responses to their sons disclosing their gay identity was not significantly different across race or ethnicity (Katz-Wise et al., 2016).

For some of these LGBTQ youth, there is an increased risk for family violence when they announce their sexual orientation as non-heterosexual (Estrada & Marksamer, 2006), as well as disproportionate numbers of LGBTQ adolescents who run away from home (Burwick et al., 2014). LGBTQ adolescents are subsequently more likely than their heterosexual peers to enter the juvenile justice system because of home-based or school truancy problems, often as a result of victimization or harassment (Irvine, 2010). And for those young people who experience homelessness, this is a significant predictor for juvenile detention and incarceration—and up to 40% of homeless adolescents are LGBTQ (Majd, Marksamer, & Reyes, 2009; Kosciw et al., 2018).

Family rejection, which typically sets off a tragic chain of events, and school harassment and/or victimization continue to be key factors that increase the numbers of LGBTQ youth in the juvenile justice system. This lack of family or peer support perpetuates offending and truancy recidivism (Advancement Project et al., 2011; Fedders, 2006). Following family rejection during adolescence, homelessness and drug use have been found to be

three times more likely and suicide eight times more likely for LGBTQ youth compared to their heterosexual peers (Ryan et al., 2009; Van Leeuwen et al., 2006).

LGBTQ youth are also nearly three times more likely than their heterosexual peers to report being a victim of childhood physical or sexual abuse, with boys more at risk than girls (Friedman et al., 2011; Irvine & Canfield, 2016). In addition, one review found that the risk for home removal by a children's service agency and placement in a group or foster home was twice as likely for LGBTQ youth than maltreated non-LGBTQ youth (Irvine, 2010). While research is limited in this area, LGBTQ foster care youth are disproportionately youth of color, have increased placement disruptions, isolation and rejection, mental health and depression problems, and risk for homelessness (Conran & Wilson, 2019; Sandfort, 2020).

School discipline and exclusion. LGBTQ youth have been found to be at greater risk for involvement in school discipline and, for some, subsequently the juvenile courts (Losen et al., 2014)—a phenomenon that has come to be known as the school-to-prison pipeline (Mallett, 2016). Thus, there is limited, though compelling evidence that LGBTQ youth are at greater risk than their heterosexual peers for victimization on school grounds, academic problems, school-based arrests, and referrals to the juvenile courts (Mitchum & Moodie-Mills, 2014; Palmer & Greytak, 2017).

These disparities among students is exacerbated by school districts use of zero tolerance approaches to school management and discipline, an approach now debunked as a failed way to make schools safer and to improve academic outcomes (Mallett & Tedor 2019). An early study using the Add Health longitudinal study data found that LGB youth were between 1.25 and three times more likely to experience harsh discipline outcomes—school expulsion, police stops, juvenile arrests/convictions, and adult arrests/convictions—compared to their heterosexual peers. These disparities were not explained by differences in offending rates or types and also found the risk for LGBTQ girls was significantly greater than for LGBTQ boys (Himmelstein & Bruckner, 2011). Subsequent research identified that transgender youth experience even harsher school and juvenile justice disparity outcomes than their gay and heterosexual peers (Rosentel, et al., 2020). These disparities can be explained by punitive school approaches to discipline, explicit and implicit bias toward LGBTQ students, and lack of school supports (Snapp et al., 2015).

LGBTQ students experience, as noted, exclusionary discipline (suspensions and expulsion) and hostile school environments more often than their heterosexual peers (Skiba et al., 2014). School environments have been found

to systematically discriminate against many LGBTQ students and to have hostile learning environments that impede academic and social development (Kosciw et al., 2010; Savage & Schanding, 2013; Watson & Russell, 2016). This has been found to be particularly true also for LGBTQ students of color, more often the target of peer bullying, but also disciplined more often for minor misbehaviors such as gender-based dress codes, truancy, and tardiness (Diaz & Kosciw, 2009; Losen & Diaz, 2013).

Juvenile delinquency. Historical myths that LGBTQ youth are rare or non-existent in the juvenile courts have given away to more accurate epidemiology of this at-risk population (Irvine, 2010). Evidence has found that LGBTQ youth are twice as likely than their heterosexual youthful offending peers to be arrested and detained for status and other nonviolent offenses (Irvine, 2010; Mitchum & Moodie-Mills, 2014). And while they make up only 5% to 7% of the youth population, LGBTQ youth account for between 13% and 15% of youthful offenders formally processed in the juvenile courts and even more being held in the detention centers—up to 20%. These young people are also held two to three times longer in these facilities than their heterosexual peers with similar offending histories (Beck et al., 2013; Irvine & Canfield, 2016; Majd et al., 2009; Wilson et al., 2017). These high rates of arrests and detainment are not because of greater delinquency and related behaviors by LGBTQ youth, but that this group is punished more harshly than their heterosexual peers for similar offenses (Mitchum & Moodie-Mills, 2014). Of particular concern is that a disproportionate number, between 50% and 85%, of these detained and incarcerated LGBTQ youth are black or Hispanic, mirroring or expanding racial and ethnic disparities across the juvenile justice system (Hunt & Moodie-Mills, 2012; Irvine & Canfield, 2016; Piquero, 2008).

Adult Crime

There is increasing evidence for the LGBTQ population of the existence of a trauma-delinquency-crime link, though while complicated, shows how trauma is a pivotal part of the explanation. LGBTQ young adults are particularly at risk to be the victims of hate crimes, targeting by law enforcement, and to have mental health and substance abuse problems. Intertwined with these difficulties are three unique impacts on LGBTQ young adults' pathways into the criminal justice system compared to their heterosexual offending peers. The first is stigma and discrimination from early conflictual family years, school experiences and disproportionate exclusion and victimization, employment and discrimination, and subsequent lack of access to healthcare and related social services (Grant et al., 2011). The second is discriminatory

criminal laws around drugs, consensual sex, and other areas that disproportionately targets people of color and poor people, including the LGBTQ community. And the third is harmful policing strategies and tactics which also disproportionately bring people of color, poor people, and LGBTQ people into the criminal justice system (Center for American Progress & Movement Advancement Project, 2016). Once involved with the criminal justice system, LGBTQ adults are incarcerated at nearly three times the rate that would be expected when looking at their population percentage in the United States (Beck et al., 2013; Meyer et al., 2017).

Study hypotheses. Based on research to date, this study examines the following hypotheses:

- (1) Trauma is significantly and positively but indirectly related to juvenile and adulthood crime/incarceration.
- (2) Gay and bisexual youth are more likely than heterosexual youth to experience trauma during childhood and this trauma explains differences in delinquency and crime/incarceration across sexual orientation.

Method

Data and Sample

The National Longitudinal Study of Adolescent to Adult Health (Add Health) is a longitudinal study of a nationally representative sample of over 20,000 adolescents who were in grades 7 to 12 during the 1994 to 1995 school year and have been followed for five waves to date with the most recent 2016 to 2018 time period. Broad swaths of data are collected on demographic, social, familial, sociodemographic, psychosocial, and health factors, across participants' neighborhoods, schools, and residence (Chen & Chantala, 2014).

The most recent fifth wave of data was not released in time for this project. Thus, this study uses the first four waves of the AddHealth data to examine the pathways young people take toward youthful and young adult offending and incarceration by gender and sexuality. The sample initially included 10,120 respondents interviewed in Wave I ($n = 20,745$), Wave II ($n = 14,738$), Wave III ($n = 15,197$), and Wave IV ($n = 15,701$). For the current study, 698 respondents were dropped because of missing sampling weights. Also excluded were 14 respondents who were over 18 years old or who were not in school when they interviewed in Wave I and, therefore, there is no information on their schooling available; in addition, 37 respondents who disclosed that they were asexual were not included due to such a small group size as

were an additional 89 respondents due to the same small sample size issue of race (other). The total unweighted sample size for this study is 9,282.

Measures

Demographic variables. Self-identified sexuality was measured in early adulthood (aged 18 to 27, with an average age of 21.6) in Wave III. Respondents were asked, "Choose the description that best fits how you think about yourself (sexuality)." For the current study, four categories were created for this variable: *Straight* ("100% heterosexual (straight)"), *Bisexual* ("Mostly heterosexual (straight), but somewhat attracted to people of your own sex," "Mostly homosexual(gay), but somewhat attracted to people of the opposite sex," and "Bisexual that is, attracted to men and women equally"), and *Homosexual* ("100% homosexual (gay)"). Excluded were those who answered, "Not sexually attracted to either males or females" ($n=42$), (7) "Refused," or (8) "Don't know" because of small sample sizes and ambiguous sexuality descriptions.

The current study controls for several socio-demographic variables that are found to be significant correlates of delinquency and crime. *Age* is an interval variable, respondents were aged between 11 and 21 (average age is 15.26) in Wave I; between 12 and 21 (average age is 16.18) in Wave II; between 18 and 27 (average age is 21.62) in Wave III; and between 24 and 33 (average age is 28.12) in Wave IV; and other control variables are dummy variables: *gender* (female=1); a series of *race/ethnicity* dummy variables (Hispanic, Non-Hispanic Black or African American, Non-Hispanic Asian or Pacific Islander, and Non-Hispanic White as the reference group); *Parental educational attainment* (at least one parent with some college or higher education, level=1) and is used as a proxy for SES (socio-economic status). Descriptive statistics of these control variables were calculated separately and compared with LGB variables.

Trauma. Nine items were used to measure childhood trauma. These items asked about details concerning childhood traumatic experiences. Four trauma items were asked in Wave IV and asked whether the following experiences ever happened and their frequencies before respondents' 18th birthday: "[Have] Parents or other adult care-givers slapped, hit, or kicked you?," "[Has] a parent or other adult care-giver [said] things that really hurt your feelings or made you feel like you were not wanted or loved?," "[Has] one of your parents or other adult caregivers touched you in a sexual way, forced you to touch him or her in a sexual way, or forced you to have sexual relations?," "[Was] your biological father/mother or father/mother figure ever in

jail or prison?" If respondents ever experienced any of these incidents, it was coded as one, otherwise as zero. One trauma item was asked in Wave III: "Did you ever live in a foster home?" If respondents answered yes, it was coded as one, otherwise zero.

The other four trauma items were asked in Wave I (aged 11–21) and Wave II (aged 12–21) and specified the time period within 12 months of the survey. It was coded yes (=1) or no (=0) for the following questions: "Do you agree or disagree with the following statements? Most of time, your father is warm and loving toward you," "Have any of your family tried to kill themselves?," "You saw someone shoot or stab another person," and "Someone pulled a knife or gun on you." In the analysis, all of the trauma items were used to create a latent variable named Trauma.

Juvenile delinquency. Respondents were asked several questions related to juvenile delinquency in Wave I and Wave II. Eight items were used to measure juvenile delinquency, and these items asked how often the following delinquencies happened in the past 12 months: "Pulled a knife or gun on someone," "Shot or stabbed someone," "Serious physical fight," "Damage[ed] property that didn't belong to you," "hurt someone badly enough to need bandages or care from a doctor or nurse," "paint[ed] graffiti or signs on someone else's property or in a public place," "[stole] something worth more than \$50¹," and "[sold] marijuana or other drugs." When respondents indicated that they have been involved in these juvenile delinquencies once or more, it was coded one, and zero otherwise. In the analysis, all of these delinquency items were used to create a latent variable named Delinquency.

Adult crime. The Add Health survey also asked questions about adulthood crime involvement experience in Wave III and Wave IV. *Adult crime* was measured using respondents' answers to the questions asked about the following nine crime involvement experiences in the past 12 months when respondents were interviewed in Wave III and Wave IV: "Buy, sell, or hold stolen property," "Deliberately damage property that didn't belong to you," "Take serious physical fight requiring in which you were so badly injured that you were treated by a doctor or nurse" (Wave III), "get into a serious physical fight" (Wave IV), "Shot or stabbed someone," "Pulled a knife or gun on someone," "Use someone's credit, bank, or ATM card without permission or knowledge," "Sold marijuana or other drugs," "steal something worth more than \$50," and "Steal something worth less than \$50." When respondents answered they had ever been involved in these crimes in the past 12 months, it was coded as one, and zero otherwise. In the analysis, all of these adult crime items were used to create a latent variable named Crime.

School discipline and exclusion. The survey also asked questions related to school discipline and exclusion, and four items were included—school dropout, school suspension, middle school expulsion, and high school expulsion. School dropout was measured as one if respondents who were not in school in Wave I or Wave II because of dropout and zero otherwise. School suspension was coded as one if respondents answered that they ever received an out-of-school suspension in Wave I or Wave II, and zero if they have not. In Wave III, the survey asked the following questions: “Have you ever been expelled from school?” and “From what level of school have you been expelled?” When respondents answered yes and they were expelled between 6th and 8th grade, they were assigned as one on middle school expulsion. If respondents were expelled between 9th and 12th grade, they were assigned as one on high school expulsion.

Juvenile incarceration. In Wave IV, the survey asked respondents the following questions: “How old were you the first time you went to jail, prison, juvenile detention or other correctional facility?” and “Before your 18th birthday, about how much total time did you spend in jail or detention?” Juvenile incarceration was measured as one if respondents had spent time in jail or detention when they were under 18 and zero otherwise.

Adult incarceration. Wave IV of the Add Health data measured respondents’ early adulthood incarceration experience. Respondents were asked the following questions: “How old were you the first time you went to jail, prison, juvenile detention or other correctional facility?” and “Since your 18th birthday, about how much total time have you spent in jail or prison?” A dummy variable was created for *Adult Incarceration* to equal one if respondents had ever spent time in jail or prison when they were over 18 and zero otherwise.

Analysis

Structural equation modeling is a multivariate statistical analysis technique that is used to analyze structural relationships. This technique is the combination of factor analysis and multiple regression analysis, and it is used to analyze the structural relationship between measured variables and latent constructs. For each gender a structural equation model (SEM) was conducted. Both models had the same structure. The hypotheses involve examining the pipeline from school outcomes to adult incarceration. While path analysis is a special case of SEM, this model extends to include several latent variables. The path portion of the SEM analysis starts with school outcomes (middle school and high school expulsion, school suspension, and dropout).

The second step on the path is delinquent activities (a latent variable) that is correlated with school outcomes because it is impossible to determine which happened first (thus the double headed arrow). Juvenile incarceration is the third step along the path. Similar to juvenile delinquent activities, adult criminal activities (also a latent variable) is correlated with juvenile incarceration. Finally, adult incarceration is the last step on the path. At each of these steps, the direct impact of demographic variables (sexual identity, age, race/ethnicity, and SES) and trauma (a latent variable) were examined. This model allowed both direct and indirect effects of demographic variables and trauma at each step of the path. Structural equation modeling (SEM) was conducted using R x64 4.0.2 and the lavaan version 0.6-7 which was released on CRAN (Rosseel, 2012) with full information maximum likelihood estimation separately for females and males (Figure 1).

Results

Descriptive Results

Descriptive summaries contrasting the sample and weighted population values are shown in Table 1 broken down by gender. Most summaries are consistent between sample and weighted population values with the exception of race where the sample shows the oversampling of black and Hispanic subjects. For all characteristics in the sample except school dropout, there was a significant difference between female and male respondents using chi-square analyses. As the analyses will be performed using the weighted population, that group was 51.3% female and 48.7% male.

Structural Equation Models

Structural equation modeling (SEM) was conducted using R x64 4.0.2 and the lavaan version 0.6-7 which was released on CRAN (Rosseel, 2012) with full information maximum likelihood estimation separately for females and males. Both analyses were weighted by the cross-sectional weight corresponding to Wave I respondents who were interviewed at Wave IV. Model fit indices were evaluated based on Hu and Bentler's (1999) criteria: root mean square error of approximation (RMSEA) < 0.05 . The RMSEAs were 0.031 and 0.034 for the female and male models respectively. The comparative fit indices were 0.545 and 0.645 which is lower than the recommended 0.95, but consistent with a large proportion of variance that is still left unexplained. The standardized root mean square residual (SRMR) statistics were 0.051 and 0.057 which are below the 0.08 recommended threshold. All reported

Table 1. Sample and Population Demographics.

Variables	Sample		Weighted population	
	Female % (<i>n</i> = 5,062)	Male % ¹ (<i>n</i> = 4,220)	Female % (<i>N</i> = 7,246,555)	Male % (<i>N</i> = 6,888,748)
Gender	54.5	45.5	51.3	48.7
Sexual orientation				
Straight	86.6	93.9	86.1	93.8
Gay	13.0	4.8	13.5	5.1
Bisexual	0.4	1.3	0.4	1.1
Race/ethnicity				
Hispanic	14.9	16.2	11.7	12.2
Asian	5.2	6.6	3.0	3.7
Black	21.7	18.2	14.5	13.6
Native Indian	0.6	0.6	0.5	0.7
White	57.6	58.5	70.4	69.8
SES proxy—parent with college degree				
Yes	35.9	40.4	33.8	37.2
No	64.1	59.6	66.2	62.9
School dropout				
Yes	2.5	2.8	3.2	3.0
No	97.5	97.2	96.8	97.0
School suspension				
Yes	23.1	37.2	22.1	36.9
No	76.9	62.8	77.9	63.1
Middle school expulsion				
Yes	1.3	3.5	1.3	4.0
No	98.7	96.5	98.7	96.0
High school expulsion				
Yes	3.2	7.8	2.9	8.5
No	96.8	92.2	97.1	91.5
Juvenile incarceration				
Yes	0.6	3.6	0.7	4.0
No	99.4	96.4	99.3	96.0
Adult incarceration				
Yes	2.9	13.9	2.6	14.8
No	97.2	86.1	97.4	85.2
Age (years)—mean	15.2	15.4	14.9	15.1
Standard deviation	1.6	1.6		

¹In the sample, all variables are significantly different between male and female except school dropout.

path coefficients are unstandardized and standardized estimates, the latter being indicative of effect sizes.

Three latent factors were used in the regression models: trauma, delinquency, and crime. The elements comprising these factors are listed in Table 2 along with population weighted frequencies of the incidence of each element for females and males. Each of these elements are treated as binary variables. The nature of the latent variable is intrinsically related to the nature of the indicator variables used to define them. As in the most usual case, we structure the model so that the indicators are “effects” of the latent variable, like in the case of the common factor analysis. Table 3 provides the population weighted unstandardized, standardized, and *p*-value for each element of the latent variables for females and males. All are significant except residing in a foster home in the trauma latent variable for males.

There were five simultaneous regressions run as part of the SEM. Each included the common demographic variables of race/ethnicity, sexual orientation, age, and parental education level (SES) as control variables. The results of the two SEM equations are shown in Figures 2 and 3 respectively for females and males. SES and age, control variables, were left out of the diagram for simplicity. However, the full results of the SEM equations are in Table 4, and in the SEM figures, only significant relationships are shown. A solid line indicates that that variable has a significant increase in the outcome variable and a dotted line shows a significant decrease in the outcome variable.

Figure 2 shows that, for females, being Hispanic, black, bisexual, or coming from a low SES family increases the likelihood of having childhood trauma. Having traumatic childhood experiences then increases the likelihood of involvement in delinquent activities while being black and older are protective factors for delinquency. There are no direct predictors of juvenile incarceration. Traumatic childhood experiences, gay, bisexual, black, and younger are all direct predictors of involvement in criminal activities. Finally, traumatic childhood experiences, criminal activities, being incarcerated as a juvenile, or from a low SES family are more likely and being Asian is less likely to be incarcerated as an adult. Being gay is related to not being incarcerated as an adult.

Figure 3 shows that, for males, being Hispanic, black, younger, or coming from a low SES family increases the likelihood of having childhood trauma. Having traumatic childhood experiences increases the likelihood of involvement in delinquent activities while gay, Hispanic, black, or younger are protective factors for delinquency. Having been expelled from middle school or high school and being younger are the direct predictors of juvenile incarceration. Traumatic childhood experiences, being bisexual, younger, and from a

Table 2. Latent Variable Differences between Males and Females, Population Weighted.

Variables	Female (%)	Male (%)
Trauma		
Emotional neglect	12.1	9.4
Physical abuse	17.0	17.9
Emotional abuse	52.3	41.1
Sexual abuse	7.1	2.4
Suicide attempt within the family	8.9	5.9
Resided in foster home	1.8	1.4
Direct witness to crime	11.4	17.3
Victim of crime	10.5	25.4
Parent in jail	11.0	10.4
Delinquency		
Pulled a knife or gun on someone	3.3	10.2
Shot or stabbed someone	1.1	3.8
Physical fight	27.9	49.8
Damage property that was not yours	18.8	35.0
Hurt someone badly enough to require medical care	10.4	26.2
Paint graffiti or signs	10.3	16.9
Steal something worth more than \$50	5.2	10.2
Sold marijuana or other drugs	7.2	14.6
Crime		
Buy, sell, or hold stolen property	3.0	12.2
Deliberately damage property	6.2	19.6
Serious physical fight requiring medical care	4.0	13.0
Shot or stabbed someone	0.8	2.1
Pulled a knife or gun on someone	1.5	6.1
Use someone credit, bank, or ATM card w/o permission or knowledge	1.4	2.5
Sold marijuana or other drugs	6.1	18.9
Steal something worth more than \$50	3.0	7.6
Steal something worth less than \$50	7.4	16.2

high SES family are all direct predictors of involvement in criminal activities. Finally, traumatic childhood experiences, criminal activities, being incarcerated as a juvenile, or coming from a low SES family are more likely to be incarcerated as an adult.

It is important to consider which effects have direct and indirect impact on adult incarceration. For females there are many direct and indirect effects on

Table 3. Weighted SEM Results for Latent Variables.

Variables

Trauma

Emotional neglect

Physical abuse

Emotional abuse

Sexual abuse

Suicide within the family

Resided in foster home

Direct witness to crime

Victim of crime

Parent in jail

Delinquency

Pulled a knife or gun on someone

Shot or stabbed someone

Physical fight

Damage property

Hurt someone badly enough to require medical care

Paint graffiti or signs

Steal something worth >\$50

Sold marijuana or other drugs

Crime

Buy, sell, or hold stolen property

Deliberately damage property

Serious physical fight requiring medical care

Shot or stabbed someone

Pulled a knife or gun on someone

Use someone credit, bank, or ATM card w/o permission or knowledge

Sold marijuana or other drugs

Steal something worth <\$50

Steal something worth >\$50

Females			Males		
Unstandard estimate	Standard estimate	p-Value	Unstandard estimate	Standard estimate	p-Value
0.06	0.20	<.01	0.05	0.18	<.01
0.11	0.31	<.01	0.08	0.23	<.01
0.11	0.22	<.01	0.10	0.21	<.01
0.03	0.14	<.01	0.02	0.13	<.01
0.07	0.27	<.01	0.04	0.18	<.01
0.02	0.12	<.01	0.01	0.06	.09
0.17	0.56	<.01	0.22	0.62	<.01
0.16	0.55	<.01	0.26	0.63	<.01
0.07	0.25	<.01	0.07	0.24	<.01
0.05	0.52	<.01	0.10	0.60	<.01
0.03	0.43	<.01	0.05	0.49	<.01
0.13	0.50	<.01	0.13	0.48	<.01
0.10	0.44	<.01	0.12	0.45	<.01
0.09	0.49	<.01	0.12	0.49	<.01
0.08	0.45	<.01	0.11	0.52	<.01
0.05	0.36	<.01	0.08	0.48	<.01
0.06	0.44	<.01	0.10	0.54	<.01
0.07	0.41	<.01	0.18	0.61	<.01
0.09	0.40	<.01	0.18	0.50	<.01
0.04	0.22	<.01	0.09	0.31	<.01
0.02	0.23	.02	0.03	0.25	<.01
0.03	0.25	<.01	0.07	0.34	<.01
0.03	0.25	<.01	0.05	0.33	<.01
0.09	0.41	<.01	0.17	0.48	<.01
0.09	0.54	<.01	0.14	0.59	<.01
0.14	0.56	<.01	0.17	0.50	<.01

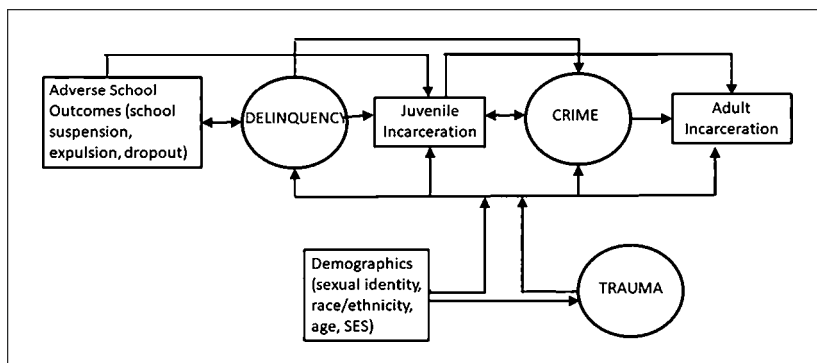


Figure 1. SEM model, used for each gender.

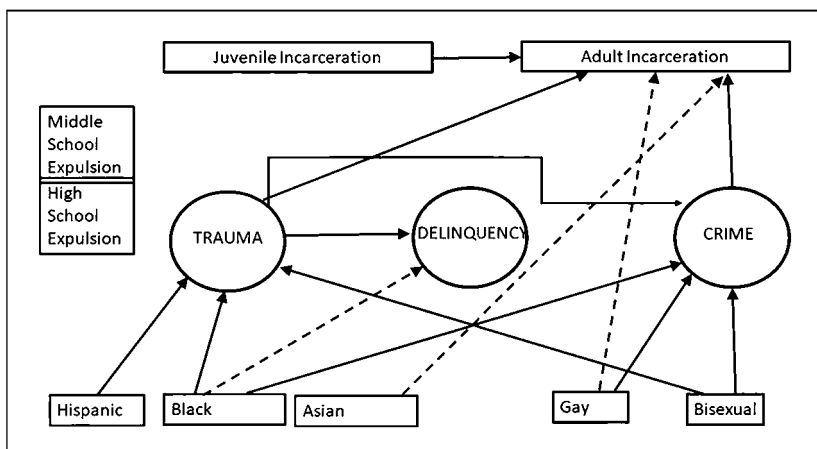


Figure 2. The results of the SEM equation for females.

adult incarceration. Being Hispanic or black is indirectly related through the trauma latent variable; however, being black is also indirectly related through the crime latent variable. Being Asian is directly and inversely related to adult incarceration. Gay respondents are less likely to be incarcerated as an adult as a direct effect; yet, indirectly related to adult incarceration through a positive relationship with criminal activities. Bisexual respondents are indirectly related to adult incarceration through a positive relationship with both traumatic childhood events and criminal activities. Traumatic childhood

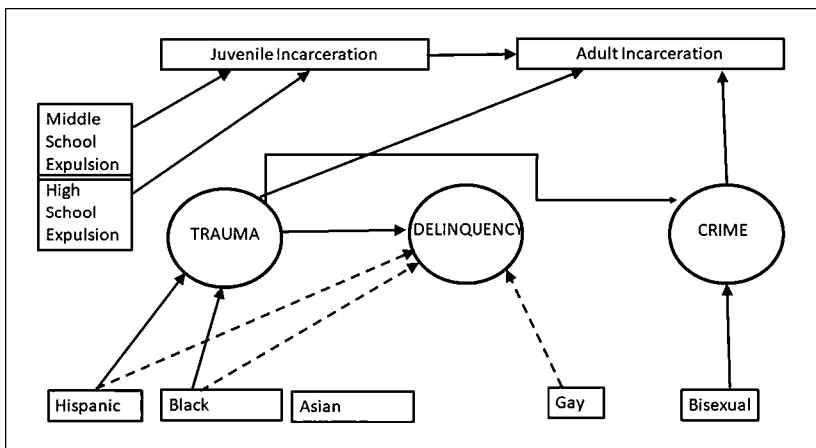


Figure 3. The results of the SEM equation for males.

events both directly and indirectly through criminal activities have an increased likelihood of adult incarceration.

When we consider males, while adult incarceration has only three direct predictors—more traumatic childhood experiences, more criminal involvement, or being incarcerated as a juvenile has a higher likelihood of being incarcerated as an adult. There are also indirect effects on adult incarceration. Blacks and Hispanics are both more likely to have traumatic childhood experiences and then more likely to be incarcerated as an adult. Bisexual respondents were more likely to be involved in criminal activities and then more likely to be incarcerated as an adult. Middle school and/or high school expulsion increases likelihood of juvenile incarceration and then more likely to be incarcerated as an adult.

Discussion

There is significant literature finding LGBTQ youth disproportionately involved in both the juvenile and criminal justice systems; but much less common are investigations looking at young people and their sexual identities separately across identifying as homosexual, bisexual, transsexual, or queer (Himmelstein & Bruckner, 2011; Rosentel, et al., 2020). Growing up and finding your LGBTQ identity often is a challenging, stressful, and unpredictable process. Navigating through this with family members, peers, and the young person's community may or may not be an accepting or easy process, and for

Table 4. Weighted SEM results for Regressions by Gender.

Variables ¹	Females	
	Unstandardized estimate	Standardized estimate
Trauma ²		
Gay	0.12	0.01
Bisexual	0.56	0.18
Hispanic	0.53	0.16
Black	0.58	0.19
Asian	-0.08	-0.01
Age (years)	-0.01	-0.01
Parent with college degree	-0.36	-0.16
Delinquency		
Trauma	1.36	0.83
Gay	-0.39	-0.01
Bisexual	0.19	0.04
Hispanic	-0.06	-0.01
Black	-0.29	-0.06
Asian	0.13	0.01
Age (years)	-0.09	-0.08
Parent with college degree	0.11	0.03

p-Value	Males		p-Value
	Unstandardized estimate	Standardized estimate	
.69	-0.16	-0.02	.42
<.01	0.04	0.01	.78
<.01	0.62	0.19	<.01
<.01	0.57	0.18	<.01
.40	-0.05	-0.01	.64
.74	0.10	0.15	<.01
<.01	-0.29	-0.13	<.01
<.01	1.53	0.88	<.01
.39	-1.15	-0.07	<.01
.19	-0.11	-0.01	.49
.71	-0.46	-0.08	<.01
.04	-0.61	-0.11	<.01
.47	-0.31	-0.03	.09
<.01	-0.09	-0.09	<.01
.22	0.17	0.05	.07

(continued)

Table 4. (continued)

Variables ¹	Females			Males		
	Unstandardized estimate	Standardized estimate	p-Value	Unstandardized estimate	Standardized estimate	p-Value
Juvenile incarceration						
Trauma	-0.01	0.32	.23	0.04	0.30	.12
Delinquency	0.01	-0.10	.06	0.01	0.10	.58
Gay	0.00	0.04	.59	-0.02	0.01	.33
Bisexual	0.00	0.21	.50	0.00	0.09	.90
Hispanic	0.01	0.01	.30	-0.01	0.00	.41
Black	0.00	0.08	.47	-0.01	0.03	.75
Asian	0.00	-0.01	.58	-0.02	0.00	.11
Age (years)	0.00	-0.09	.94	-0.01	-0.19	.01
Parent with college degree	0.00	0.04	.92	0.00	0.09	.78
School dropout	0.03		.24	-0.04		.25
School suspension	0.01	-0.12	.41	0.02	0.20	.17
Middle school expulsion	0.04	0.20	.28	0.10	0.06	.03
High school expulsion	0.02	0.00	.24	0.09	-0.01	<.01
Crime		0.02			0.00	
Trauma	0.20	0.03	<.01	0.18	-0.02	.02
Delinquency	-0.11	0.02	.40	0.10	-0.01	.45
Gay	0.62	0.00	.04	0.13	-0.02	.50

(continued)

Table 4. (continued)

Variables ¹	Females			Males		
	Unstandardized estimate	Standardized estimate	p-Value	Unstandardized estimate	Standardized estimate	p-Value
Bisexual	0.67	0.00	<.01	0.44	-0.07	<.01
Hispanic	0.04	0.00	.65	-0.01	-0.01	.92
Black	0.25	0.06	<.01	0.08	-0.03	.40
Asian	-0.04	0.03	.73	0.01	0.04	.89
Age (years)	-0.06	0.05	<.01	-0.13	0.10	<.01
Parent with college degree	0.09	0.05	.16	0.20	0.13	<.01
Adult incarceration						
Trauma	0.01	0.07	.04	0.08	0.25	<.01
Crime	0.04	0.28	<.01	0.04	0.11	<.01
Juvenile incarceration	0.25	0.12	.02	0.31	0.17	<.01
Gay	-0.05	-0.02	<.01	-0.01	0.00	.80
Bisexual	-0.01	-0.02	.42	-0.02	-0.02	.42
Hispanic	0.00	0.00	.88	0.01	0.01	.62
Black	-0.01	-0.02	.35	0.03	0.03	.23
Asian	-0.02	-0.02	<.01	-0.04	-0.02	.07
Age (years)	0.01	0.05	.01	-0.01	-0.03	.26
Parent with college degree	-0.02	-0.05	.01	-0.07	-0.09	<.01

¹Reference categories are: Straight, Non-Hispanic Non-Black, parents have no college degree, completed high school, no school suspensions, no school expulsions.

²Latent variables are in all capital letters.

many, much trauma is involved in “coming out” (Pew Research Center, 2013). Being an adolescent is difficult enough, as identifies form and change over time, compounding these changes along with identity acceptance can increase the risk for school failure or removal, delinquent peer choices and related troubles, unaccepting and rejecting family members, and being a target of bullying, among others (Burwick, et al., 2014; Irvine & Canfield, 2016).

The impact of trauma experiences is often multi-layered and the harshest impact is when these traumas occurs over time—typically not a one- or two-time event, but comorbidly. Similarly, delinquency and crime outcomes are the result of many factors including the impact of home life, school, peers, and neighborhoods (Mallett & Tedor, 2019). Which is why this study included a large number of variables trying to figure out the inter-relationships by asking whether trauma is significantly and positively but indirectly related to juvenile and adulthood crime/incarceration and if gay and bisexual youth are more likely than heterosexual youth to experience trauma during childhood and if this trauma explains differences in delinquency and crime/incarceration across sexual orientation.

These multi-factor explanations were found here as the study hypotheses were completely supported, and in particular, point to a trauma-delinquency-crime link. Females were more likely to experience childhood trauma if they were a person of color, poor, or bisexual. These traumatic childhood experiences were all direct predictors of adult criminal activity, as was being bisexual or gay, though they were not direct predictors of adult incarceration. However, other factors that are well established as predictors of adult incarceration were found for females—being incarcerated as a juvenile, being poor, and being gay (but not bisexual). Similarly, males were more likely to experience childhood trauma if they were a person of color or poor, but not if they were bisexual or gay. These traumatic experiences and being bisexual (though not gay) also predicted juvenile delinquency, adult criminal activity, and adult incarceration.

These findings further delineate the differences across the LGBTQ spectrum and this trauma-delinquency-crime link. While the pathway to adult crime/incarceration is different for young men and young women, it was found here to have a number of explanations over time. Almost all expected impacts on adult incarceration were found either directly or indirectly through childhood trauma, school discipline, or delinquency, but an important distinction was whether the person identified as bisexual or gay. This is in line with other research that continues to find a disproportionate number of LGBTQ adults who are incarcerated (Meyer et al, 2017).

The findings here also reinforce that LGBTQ youth and young adults are not a monolithic group and have unique experiences and pathways to

incarceration. Both gay and bisexual young women were more likely to be incarcerated as adults, though as discussed earlier, their pathways were different. Only gay, not bisexual, males were more likely to be incarcerated as adults, and their pathway was uniquely different than gay or bisexual females. In addition, it was gay and bisexual people of color (black and Hispanic) who were more likely to be incarcerated, reinforcing the decades long problem with disproportionate minority confinement and racial and ethnic disparities in the criminal justice system (Mallett, 2018).

These findings expand upon the limited research on LGBTQ youth's trauma-delinquency-crime pathways. Himmelstein and Bruckner (2011) found that gay adolescents were more at risk than their heterosexual peers for school expulsion, being stopped by police, and juvenile and adult convictions, with girls at higher risk than boys; while Rosentel et al. (2017) found that anti-trans school victimization, school expulsion, and police mistreatment were all associated with later incarceration. This research investigated the impact that trauma had on similar outcomes, differentiating between gay and bisexual young people and via their gender. If ongoing investigations confirm these findings of differential pathways for gay or bisexual young people, then it would be important to know what supports are needed in the LGBTQ community to differentially address trauma experiences, school problems, or delinquency prevention efforts. It is becoming more readily apparent that the LGBTQ community is not one large tent, but numerous tents being incorrectly seen through one viewed paradigm. A monolithic viewpoint and approach may not be beneficial for those young people most at-risk for poor outcomes.

The experiences growing up LGBTQ, subsequent challenges, possible school problems, and trauma differentially impact this population, as well as exacerbate racial and ethnic disparities for these young people within the juvenile and criminal justice systems. Efforts to improve these outcomes can be focused on families, schools, or the juvenile and adult justice systems. Family supports can include earlier identification of parents who struggle with accepting their child's sexual identity and providing mental health supports and violence prevention interventions. Schools can continue to expand bullying prevention efforts which have shown improvements over the past decade through classroom curriculum changes, LGBTQ alliance organizations, and positive behavioral approaches to school management that has drastically decreased school suspensions and expulsions (Mallett & Tedor, 2019; Toomey et al., 2011). While state policymakers and local law enforcement efforts can amend discriminatory drug and consensual sex laws that disproportionately target LGBTQ community members and people of color.

Study Limitations

There are a number of limitations to this study. First, some of the data covers only 12 months of each of the four waves (this includes the measure of delinquency, trauma, and crime). Second, the juvenile and adult incarceration reports could be underestimates because the data began with school-based interviews and did not include those who dropped out before the 1994 to 1995 academic year, a group that would be much more at risk for incarceration outcomes. Third, questions about LGBTQ (or more specifically, only LGB) began only in Wave III of the study (when respondents were 18–27 years old, and the average age was 21.6), limiting some of the data collection and analysis; it is not possible to assess the reliability of the models due to lack of available information. And, fourth, the model runs variance is low because all the variables of interest that are known to increase the risk for incarceration were not available from the data set.

Conclusion

If research continues to find that a young person's sexual orientation (along with gender and race) has differential impact on juvenile and adult incarceration, then practice and policy can be better informed to help prevent these unwanted outcomes. Continuing to expand the field's empirical risk (and protective) factor knowledge can further inform those working with LGBTQ young people as well as policy makers who may be most vulnerable and most in need of preventative interventions. The child and youth-caring systems are typically underfunded, requiring triage in determining who is most in need to receive resources. If these young people can be identified early, then through the use of effective prevention efforts (and a bit of good fortune and timing), maybe crime and incarceration can be diverted.

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Note

1. An item asks the juvenile delinquency experience of stealing something worth less than \$50 was excluded for consistency of juvenile delinquency experience within 12 months since this question did not specify the period time.

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