



# School, Social-Communicative, and Academic Challenges Among Delinquents and Juvenile Sexual Offenders

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## Abstract

This study explores the association between student factors and delinquency by comparing two groups of adjudicated youth in six Midwestern residential facilities: 331 young men committed for a sexual offense, and 171 committed for a nonsexual offense. Statistically significant findings include juvenile sexual offenders exhibiting a greater number of delinquent behaviors and greater academic and social difficulties compared with their counterparts adjudicated for a nonsexual offense. Additionally, path analysis revealed that school experience was negatively associated with delinquency for both groups. For juvenile sexual offenders, academic difficulties were associated with delinquency through their school experience. Among general delinquents, delinquency was directly associated with social difficulties and school experience. Implications for interventions and future research are discussed.

**Keywords** Adolescent sexual offending · Delinquency · School experience · Academic difficulties · Social difficulties

A range of school-related stressors, such as poor school experience and social communicative and academic difficulties are strongly associated with crime among youth (Agnew, 2009). Youth who have committed sexual offenses (juvenile sexual offenders, JSOs) tend to have high levels of co-occurring general delinquency (Brown & Burton, 2010; van Wijk et al., 2006) and share many characteristics with youth offenders who have committed nonsexual offenses (general delinquents, GDs; Seto & Lalumière, 2010). Failures in school bonding and academic achievement during early adolescence are well established correlates of problem behaviors and delinquency in late adolescence (Hoffmann, Erickson, & Spence, 2013; Welsh & Harding, 2015). Strong evidence also associates lack of school-related social competencies such as communication abilities with delinquency (Gottfredson, 2017). This study therefore compares

school-related stressors between JSOs and GDs, an area past research has ignored.

A recent study comparing JSOs to GDs shows that general delinquency and property damage significantly predicted membership in the JSO group (Leibowitz, Akakpo, & Burton, 2016). However, to the best of our knowledge, only one study has compared JSOs to GDs using a school-based indicator. This study relies on population-based data from Sweden (Kjellgren, Priebe, Svedin, & Långström, 2010). It found that GDs were more likely than JSOs to be in a vocational school as opposed to an academic-based program (Kjellgren et al., 2010). However, the authors did not hypothesize as to the significance of this finding. This finding might suggest that the relationship between school-based factors and delinquency looks different for JSOs than GDs. If so, school-based delinquency interventions for JSOs might benefit from different approaches than those designed for GDs. Hence, the purpose of this study is to compare the role of school experience and social communicative and academic difficulties on delinquency among JSOs and GDs. Findings have implications for practice with children and adolescents in understanding and preventing delinquency, especially among JSOs.

The literature refers to school experience by many terms, including “school bonding,” “school engagement,” and “school connectedness” (Blum, 2005; Jonson-Reid, 2009).

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All have a strong inverse link with negative behaviors by adolescents (Blum, 2005; Fredricks, Blumenfeld, & Paris, 2004; Jonson-Reid, 2009; Maddox & Prinz, 2003; McNeely, Nonnemaker, & Blum, 2002). For example, having the ability to make and maintain friendships in school and/or the experience of academic success may contribute to a positive school experience (Blum, 2005; Jonson-Reid, 2009). Such positive encounters are important, as failure to cultivate encouraging experiences might result in young people turning to crime as a means of alleviating the negative emotions associated with school (Agnew, 2009). As such, in order to foster positive feelings of school among JSOs and GDs, it is important to identify potential sources of school stressors and to understand how they may relate to delinquency.

A number of factors can influence a student's experience at school. For instance, strong evidence shows that race/ethnicity affects a student's overall experience in school, as African American youth proportionally encounter more academic struggles in school than White youth (Rocque & Paternoster, 2011). African American youth tend to be over-represented in juvenile detention settings (Pettus-Davis & Epperson, 2015). However, White youth tend to represent the greatest number of JSOs (Burton & Ginsberg, 2012; Kernsmith, Craun, & Foster, 2009); African-American GDs are more likely than white GDs to have committed nonsexual violence (Felson & Kreager, 2014).

A deeper understanding of how race/ethnicity functions in the connection between delinquency and the school experience might highlight some important differences between JSOs and GDs. An understanding of the impact of educational disability and the attending risk of being victimized in school than their peers is also a significant contribution to the literature (Rose, Monda-Amaya, & Espelage, 2010). Often, a learning disability diagnosis is associated with academic abilities and social communicative skills (Espelage, Rose, & Polanin, 2015). Findings with respect to both race and learning disabilities have important implications for social workers, particularly school practitioners. First, the over-representation of African-American youth in juvenile detention settings requires a social work ethical response (Pettus-Davis & Epperson, 2015). Second, findings with respect to all of these factors can support early interventions to prevent delinquency among students who display significant needs in their school social-communicative abilities.

In light of the association between a young person's academic ability and school success (Blum, 2005; Jonson-Reid, 2009), social communicative skills, which include the ability to resolve conflicts and maintain relationships in school (Merrell & Gimpel, 2014) are important. Despite being conceptually distinct constructs, academic and communicative deficits are highly correlated; students with poor communicative skills are very likely to have lower academic abilities and vice versa (Riggio, Messamer, & Throckmorton, 1991).

Furthermore, both poor communicative skills and lower academic abilities are highly associated with delinquent behaviors (Clegg, Stackhouse, Finch, Murphy, & Nicholls, 2009; Katsiyannis, Ryan, Zhang, & Spann, 2008). The inability to achieve positively valued goals, such as academic success, or the loss of positively-valued stimuli, such as having friends at school, are likely to be great sources of strain in a young person's life that could lead to delinquency (Agnew, 2009).

The extent to which academic abilities and social communication are associated with delinquency may differ between JSOs and GDs. For instance, while researchers have not explored the link between school experience and delinquency among JSOs, JSOs tend to have lower measures of general intelligence and memory functioning than GDs (Cantor, Blanchard, Robichaud, & Christensen, 2005; Seto & Lalumière, 2010), which would likely affect academic ability. Very little attention has been paid to how levels of social competence might distinguish these groups. If young people with lower cognitive and communicative functioning tend to struggle in their academics and social interactions, it makes sense that they might experience school less positively than those without these issues might. The additional strains they experience as a consequence of this type of school experience may, in turn, expose them higher risk of engaging in criminological activities (Agnew, 2009; Bennett, Farrington, & Huesmann, 2005; Hawkins, Catalano, Kosterman, Abbott, & Hill, 1999).

Given the potential for quality of school experience, academic abilities, and social communication and background factors to differ between JSOs and GDs, this study seeks to compare how these student factors may differ. Based on the literature, we hypothesize that academic and communicative difficulties correlate with each other for both groups, but that JSOs will report higher levels of academic and communicative difficulties and lower levels of positive school experience than GDs. We also hypothesize that, after taking race and special education status into account, the quality of school experience is inversely associated with delinquency in both groups. Lastly, we believe that academic and communicative difficulties are inversely associated with positive school experience and positively linked with delinquency for the two groups.

## Methods

### School Experiences

### Participants and Procedures

Participants were incarcerated male juveniles, ages 12–20 ( $n = 502$ ), recruited from six residential facilities in a

Midwestern state. Juvenile sexual offenders are likely to be male (Barbaree & Marshall, 2008). Among our sample, 331 (66%) were adjudicated for sexual offenses and 171 (34%) for non-sexual crimes. Among these participants, 321 JSOs and 155 GDs' responses were suitable to be used for this study's analyses, as the other participants had a high degree of missing values on some measures used in this study, and it was not possible to impute. There was no difference between juveniles left out due to missing responses and those used in this study.

After approval from the State Department of Youth Services Institutional Review Board (IRB), self-reported measures were administered using pencil and paper surveys in a small group format (6–8 participants) in classrooms. Youths were separated to ensure that they could not view one another's responses. A trained graduate student research assistant read the survey aloud individually to those youths who struggled with reading. Participants received no incentive to complete the survey. Those youths who refused to participate (approximately 30%) were proportionately distributed across the six facilities. It was not possible to compare data on those who declined vs. those who consented to participate.

## Measures

### Academic Difficulties

Academic difficulties were based on the sum of five questions that assessed problems in reading, writing and math, such as "how difficult is/was reading for you?" and "how difficult is/was math for you?" "How difficult was/is penmanship (writing letters or numbers) for you?" "How difficult was/is spelling for you?" "How difficult was/is it for you to write your thoughts on paper?" These are standard questions used to assess academic difficulties (Johnston, 1985). Cronbach's alpha for this measure was 0.75. Participants chose from five responses ranging from "1" = no difficulties at all to "5" = a great degree of difficulty. A higher overall score would suggest more struggles in academic difficulties.

### Social Communicative Difficulties

The measure for communicative difficulties was constructed from the sum of six questions that examined struggles in understanding and communicating thoughts and feelings. The following questions were asked: "How much difficulty did/do you have understanding what others were saying to you?" "How difficult was/is it for you to communicate with others?" "How difficult was/is it for you to communicate your feelings to others?" "How difficult was/is it for you to communicate your ideas/thoughts to others?" "How difficult was/is it for you to understand spoken directions?" and

"How difficult was/is it for you to understand written directions?" These are frequently used questions to assess social-communicative difficulties (Kaczmarek, 2002). Cronbach's alpha = 0.78. Similar to academic difficulties, participants chose from five responses ranging from "1" = no difficulties at all to "5" = a great degree of difficulty.

### School Experience

The quality of school experience was measured using a single item asking respondents to rate the degree to which they liked school during their elementary and secondary school years up until the time of their incarceration. Participants chose from a scale of 1 to 5, with a higher score indicating a more positive school experience.

### Delinquency

Delinquent behaviors were assessed using the Self-Reported Delinquency (SRD) scale (Elliott, Huizinga, & Menard, 1989), which measured delinquent behaviors based on 32 questions, such as "before I was arrested, I sold marijuana/pot/weed/hash," and "I hit or threatened to hit one of my parents." For each question, respondents were asked to rate on a scale of "1," indicating that they did not exhibit that behavior, to "7," which indicated that they displayed the behavior "two to three times a day." Responses from the 32 questions were added together to provide a measure of delinquency. A higher overall score would suggest a higher involvement or greater intensity in delinquent behaviors. Cronbach's alpha was 0.97.

### Race/Ethnicity and Special Education Status

Race/ethnicity and special education status were based on youths' self-reports. For race/ethnicity, participants chose from one of these categories: Black or African American, White or Caucasian, Hispanic or Latino, Asian/Pacific Islander, Native American / American Indian, Arab American, Others. Special education status was based on the question "Did/do you attend Special Education classes?"

## Analyses

SPSS version 24.0 was used to run descriptive statistics on the demographic variables and measures used in the study. To compare the differences between the JSOs and GDs, *t* tests for continuous variables and Chi square tests for categorical variables were used. Pearson bivariate correlation analyses were also conducted to examine the strength and direction of the variables used in this study. Subsequently, Mplus version 7.4 was used to run path analysis models separately for JSOs and GDs with the dummy coded variables

for race (African American) and special education added as covariates in the models.

For both JSOs and GDs, the same model that depicted the hypotheses of this study was applied and pathways not meeting statistical significance were removed from the model. The final model was assessed using the following goodness-of-fit indices: model Chi square, the comparative fit index (CFI), the Tucker–Lewis index (TLI) and the root mean square error of approximation (RMSEA). Chi square tests in the model assess the exact-fit hypothesis that there are no discrepancies between the co-variances of this study's population and those predicted by the models, with an insignificant Chi square ( $p \geq 0.05$ ) suggesting that we would not reject the exact-fit hypothesis. CFI and TLI are incremental fit indices that compare the improvement in fit over the baseline model, with values  $\geq 0.95$  being considered to be desirable; while the RMSEA is a parsimony-corrected index with a value of  $\leq 0.05$  suggesting a good model fit (Kline, 2011). The robust maximum likelihood robust (MLR) estimator under the analysis command in MPLUS was used to estimate the coefficients for the models. Missing data was handled using the default ML function in Mplus.

## Results

### Characteristics of the Sample

Table 1 provides a descriptive summary of the sample. The mean age for JSOs was 16.70 ( $SD = 1.65$ ) and for GDs, 16.49 ( $SD = 1.28$ ). No statistically significant differences were noted between groups in terms of age. Differences were noted for race and special education status. JSOs tended to be mostly White and GDs were mostly African American (47.0 vs. 52.9%;  $p \leq 0.001$ ). JSOs had higher placement rates in special education (49.4 vs. 26.5%;  $p \leq 0.001$ ). JSOs were significantly more likely than GDs to have reported academic

difficulties ( $M = 11.01$ ,  $SD = 4.78$  vs.  $M = 9.84$ ,  $SD = 4.54$ ;  $p \leq 0.05$ ) and communicative difficulties ( $M = 12.83$ ,  $SD = 5.31$  vs.  $M = 10.19$ ,  $SD = 4.34$ ;  $p \leq 0.001$ ). No statistical difference was observed between groups in the quality of school experience reported (JSOs:  $M = 3.09$ ,  $SD = 1.39$  vs. GDs:  $M = 2.88$ ,  $SD = 1.33$ ). Finally, JSOs reported significantly higher levels of delinquent behaviors ( $M = 64.61$ ,  $SD = 34.07$ ) than GDs (54.31,  $SD = 24.46$ ;  $p \leq 0.001$ ).

### Bivariate Relationships

The Pearson correlation matrix (Table 2) showed that communicative difficulties were positively correlated with delinquency for both JSOs ( $r = 0.113$ ,  $p \leq 0.05$ ) and GDs ( $r = 0.228$ ,  $p \leq 0.01$ ); while academic difficulties were positively correlated with delinquency for JSOs only ( $r = 0.117$ ,  $p \leq 0.05$ ). As expected, school experience was inversely correlated with delinquency for both JSOs ( $r = -0.149$ ,  $p \leq 0.01$ ) and GDs ( $r = -0.222$ ,  $p \leq 0.01$ ), while communicative difficulties and academic difficulties were positively correlated for both JSOs ( $r = 0.533$ ,  $p \leq 0.001$ ) and GDs ( $r = 0.464$ ,  $p \leq 0.001$ ). School experience was not significantly correlated with academic and communicative difficulties for either group. Special education status was significantly correlated with all other variables for JSOs. However, for GDs, special education was only significantly correlated with race, academic difficulties, and communicative difficulties.

### Path Analysis Models and Overall Hypotheses

After removing the insignificant pathways, the two final models (Figs. 1, 2) reported satisfactory overall model-fit statistics (JSOs:  $\chi^2 p = 0.260$ ; CFI = 0.990; TLI = 0.977; RMSEA = 0.030; GDs: ML  $\chi^2 p = 0.908$ ; CFI = 1.00; TLI = 1.136; RMSEA = 0.001). Both models show a number of similarities. Firstly, school experience is inversely

**Table 1** Descriptive summary for JSOs and GDs

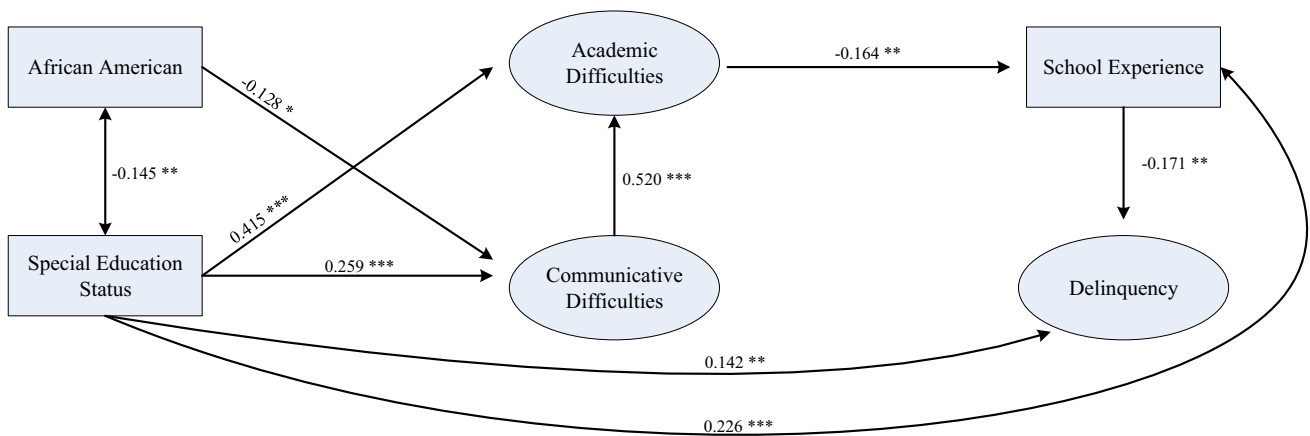
Characteristics	JSOs (n = 321)	GDs (n = 155)	Test of significance difference (p-value)
Age, mean (SD)	16.70 (1.65)	16.49 (1.28)	0.114
Race, no. (%)			
White	156 (47.00)	60 (35.30)	0.001
African American	90 (27.10)	90 (52.90)	
Others	85 (25.70)	21 (11.80)	
Attended special education classes, no. (%)	164 (49.40)	45 (26.50)	0.001
School experience, mean (SD)	3.09 (1.39)	2.88 (1.33)	0.112
Academic difficulties, mean (SD)	11.01 (4.78)	9.84 (4.54)	0.009
Communicative difficulties, mean (SD)	12.83 (5.31)	10.19 (4.34)	0.001
Self-reported delinquency scale (SRD), mean (SD)	64.61 (34.07)	54.31 (24.46)	0.001

**Table 2** Pearson correlation matrix for academic difficulties, communicative difficulties, school experience and delinquency for JSOs and GDs

	African American	Special education	Academic difficulties	Communica- tive difficul- ties	School experience	SRD
African American	1.00	-0.175*	-0.079	0.004	0.067	-0.040
Special education status	-0.144*	1.00	0.454***	0.175*	0.080	0.032
Academic difficulties	-0.105	0.370***	1.00	0.464***	-0.048	0.145
Communicative difficulties	-0.198***	0.287***	0.533***	1.00	-0.084	0.228**
School experience	-0.050	0.167**	-0.081	-0.074	1.00	-0.222**
Self-reported delinquency scale (SRD)	0.066	0.122*	0.117*	0.113*	-0.149**	1.00

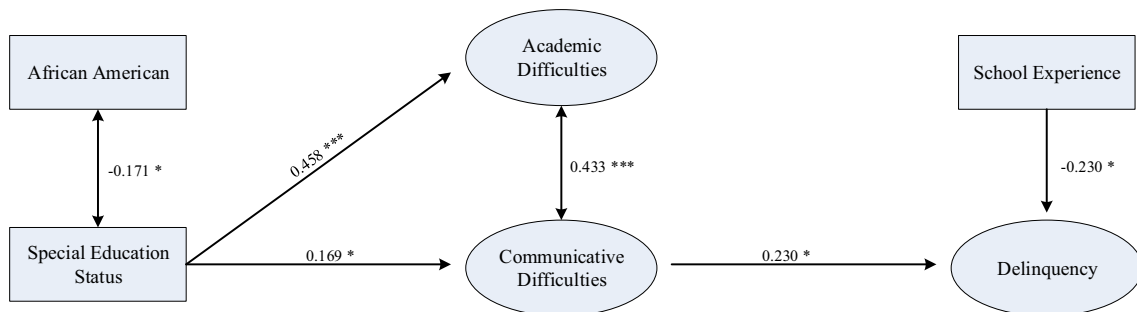
The correlations for JSOs (n=321) are below the 1.00, and the correlations for GDs (n=155) are above

\*\*\*p ≤ 0.001; \*\*p ≤ 0.01; \*p ≤ 0.05



**Fig. 1** Final Model for JSOs (n=321). \*\*\*p ≤ 0.001, \*\*p ≤ 0.01, \*p ≤ 0.05. Estimates are standardized coefficients. Large circles represent latent variables; rectangles represent single-item indicators.

Single-headed arrows represent regression coefficients; two-headed arrows represent correlations. Fit indices:  $\chi^2(6) = 7.706$ ,  $p = 0.260$ , CFI = 0.990 TLI = 0.977, RMSEA = 0.030



**Fig. 2** Final Model for GDs (n=155). \*\*\*p ≤ 0.001, \*\*p ≤ 0.01, \*p ≤ 0.05. Estimates are standardized coefficients. Large circles represent latent variables; rectangles represent single-item indicators.

Single-headed arrows represent regression coefficients; two-headed arrows represent correlations. Fit indices:  $\chi^2(8) = 3.380$ ,  $p = 0.908$ , CFI = 1.000 TLI = 1.136, RMSEA = 0.001

associated with delinquency for JSOs (-0.171; p ≤ 0.01) and GDs (-0.230; p ≤ 0.01). In addition, being African American is inversely correlated with special education status for JSOs (-0.145; p ≤ 0.05) and GDs (-0.171; p ≤ 0.05). In both models, special education status is positively associated

with academic difficulties (JSOs 0.415; p ≤ 0.001; GDs 0.458; p ≤ 0.001) and communicative difficulties (JSOs 0.259; p ≤ 0.001; GDs 0.169; p ≤ 0.05).

In addition to their similarities, the two groups showed some disparate relationships with the dependent variables

studied. For JSOs, only academic difficulties were significantly associated with school experience ( $-0.164$ ;  $p \leq 0.01$ ). GDs did not exhibit this relationship. While communicative difficulties points to academic difficulties for JSOs ( $0.520$ ;  $p \leq 0.001$ ). For GDs, this relationship was observed to be bidirectional ( $0.433$ ;  $p \leq 0.001$ ). Other relationships distinct to the JSOs included an inverse relationship between being African American and communicative difficulties ( $-0.128$ ;  $p \leq 0.01$ ), a positive association between special education status and school experience ( $0.226$ ;  $p \leq 0.001$ ), and a positive link between special education status and delinquency ( $0.142$ ;  $p \leq 0.01$ ). For GDs, the only relationship that was distinct was a positive association between communicative difficulties and delinquency ( $0.230$ ;  $p \leq 0.05$ ).

## Discussion

Findings support the hypothesis that JSOs report more academic difficulties, social communicative difficulties, and delinquency than GDs. Furthermore, as expected, school experience was inversely associated with delinquency for both groups. However, contrary to expectations, there was no significant difference in the quality of school experience between the groups. Additionally, after taking into account race and special education status, the pathways from academic difficulties to school experience and delinquency were significant among JSOs. Adolescent development researchers have found low academic achievement and having antisocial peers is associated with lower levels of school experience (Oelsner, Lippold, & Greenberg, 2011). In Seto and Lalumiere's (2010) meta-analysis, intelligence was not associated with the commission of a sexual offense among youth, although JSOs showed lower mean IQs than GDs. In this study, there was no direct association between academic and communicative difficulties on delinquency. For GDs, communicative difficulties and school experience were both significantly associated with delinquency in the hypothesized directions.

This study supports findings from the extant literature which highlights both an overlap and significant distinctions in the characteristics of juvenile JSOs and GDs (Leibowitz et al., 2016; Seto & Lalumière, 2010; Wijk et al., 2005). Specifically, JSOs display more delinquent behaviors than GDs. This study also shows the groups have distinct risk factors: JSOs are significantly more likely to have an underlying educational disability, exhibit more academic difficulties, and have greater communicative difficulties. These results provide evidence suggesting that JSOs might have greater underlying deficits in cognitive and interactional processes than GDs. Research investigating executive functioning among JSOs have found impairments in activities associated with frontal lobe functioning (Burton, Demuyneck, & Yoder,

2016; Veneziano, Veneziano, LeGrand, & Richards, 2004). These deficits are a potential source of strain for young people in schools and could elicit negative emotions, such as frustration, anger, and fear which, in turn, could diminish their consideration of the costs of deviant behavior (Agnew, 2009).

Both groups show noteworthy bivariate relationships. Race/ethnicity was significantly negatively correlated with special education status in both groups. African American youth were more likely than Whites to be diagnosed with an educational disability, which was unexpected given the contrary findings in the literature (Rocque & Paternoster, 2011). Interestingly, for JSOs only, being African American was also negatively correlated with communicative difficulties. The finding that African American JSOs struggle less with communication and report less special education involvement than Whites might suggest that race plays a significant role in the etiology of JSOs. This is an area in dire need of further investigation, as we only found one study that has investigated race directly in youth sexual abuser etiology: Burton and Ginsberg (2012) show that African American JSOs have significantly lower levels of deviant sexual interest than their White counterparts.

Study findings might suggest that race/ethnicity plays a significant role in who gets incarcerated for sexual offenses. In this sample of youth placed in residential treatment, Whites are more likely to be JSOs and African American are more likely to be GDs, reflecting the fact that African American are overrepresented among GDs but not JSOs nationally. However, race was not correlated with level of delinquency for either group. Therefore, if African American youths incarcerated for sexual abuse are presenting with fewer indicators for being a sexual abuser than White youths, it seems possible that the threshold for incarcerating a African American youth for a sexual offense is lower than it is for a White youth. Thus, White youth in an incarcerated sample may represent a more severe type of youth sexual perpetrator than the African American youth in the same sample. These findings have important implications to the broader conversations on the overall discourse of the racial disproportionality in the juvenile justice system. Efforts must be made to identify and implement appropriate strategies to address complex social justice issues (Pettus-Davis & Epperson, 2015). Findings suggest that social workers should address systemic and structural issues that pertain to the racial/ethnicity disparities and that future studies should attempt to better understand what contributes to racial difference in the schooling experience of racial minority JSOs and GDs.

Another noteworthy finding from the bivariate analyses is the observed positive association between special education status and school experience for JSOs. Results suggest that JSOs who are diagnosed with an educational disability are

more likely to report enhanced levels of school experience. This finding is inconsistent with the schooling experience literature in general, as students diagnosed with an educational disability experience more victimization than their peers (Rose et al., 2010). However, this is the first study of schooling experience that compares JSOs to GDs. As has been noted, JSOs tend to demonstrate higher levels of problematic behavior than GDs. Therefore, it seems plausible that JSOs might receive proportionally higher levels of individualized attention and support from special education teachers than GDs. Thus, for JSOs in special education, their positive school experience may be a function of their special education status.

Among the aspects of student factors examined in this study, the quality of school experience is associated with delinquency for both JSOs and GDs. This finding is consistent with the General Strain Theory's proposition on the importance of cultivating positive experiences of school for young people to serve as a deterrent against crime (Agnew, 2009). Results are also consistent with literature, which highlights the importance of one's time in school as a deterrent against delinquency (Blum, 2005; Jonson-Reid, 2009; Maddox & Prinz, 2003; McNeely et al., 2002). Given this, we expected JSOs to have a poorer experience of school. However, the analyses showed no significant difference between JSOs and GDs. Given that JSOs have greater deficits in academics and communicative abilities, this result might indicate that the overall school experience is similar for both groups because neither of these factors affect it. However, path analysis showed that, despite a significant correlation for both groups between participation in special education and academic difficulties, the overall school experience was only positively associated with these factors for JSOs. Furthermore, special education participation only had a direct correlation with delinquency for JSOs. Therefore, it is possible that, for JSOs only, special education status and academic difficulties have a unique association with school experience and the severity of delinquent behavior. Given the dearth of research on understanding the student factors of juvenile JSOs, this study contributes new knowledge to the field by drawing attention to the importance of the quality of student factors as a possible protective factor against sexual offending.

Two different patterns of the relations among academic difficulties, communicative difficulties, and school experience emerged for JSOs and GDs. For JSOs, academic difficulties have a stronger correlation with delinquency than communicative difficulties. Further, the correlation between academic deficits and delinquency seems to be indirect in that both relate to the quality of their time in school. In other words, for JSOs, the school experience mediates the effects of academic strains on delinquent behavior. A mediational influence of school experience between academic

difficulties and delinquency is plausible, as General Strain Theory highlights the function of social institutions, such as schools, to serve as a form of social control against crime (Agnew, 2009). Although a mediational analysis was not part of the original focus of this study, the finding that helping to attain positively-valued goals, such as academic success, could be associated with a more positive experience of time in school and thereby lower individual risk of deviant behaviors might guide future interventions. Similarly, the suggestion that positive school experiences buffer the strains JSOs who are academically challenged experience as a result of their academic deficits might guide preventative programs. Findings suggest that professionals working with JSOs should consider targeting levels of academic abilities and school experience together, as both strategies effectively reduce delinquency. Future research may also explicitly test for a mediating effect of school experience in the pathway between academic difficulties and delinquency.

On the contrary, for GDs, delinquency does not appear to be related to impaired intellectual functioning. One possible explanation is that GDs struggle less than JSOs to reflect on the consequences of their actions. These findings are consistent with the literature, which highlights that GDs are more likely to have higher cognitive abilities than JSOs (Cantor et al., 2005; Seto & Lalumière, 2010). Findings also suggest that GDs with strong communicative abilities are more likely to be delinquent. Based on this, interventions should address the different developmental pathways to delinquency, including improving the quality of relationships in school, as positive school experience is inversely associated with negative behaviors.

### Implications for Practice

There are many strategies that child and adolescent professionals can utilize to promote positive school experiences, social communicative abilities, and academic performance. Blum (2005) discusses multiple best practices that professionals may use to promote positive school experience among the young people they serve. For instance, GDs showed a greater liking for school if they had more participation in school activities and/or leadership opportunities in school. Programs to foster delinquents' social communicative abilities may adopt a social-emotional learning approach in which specific social skills deficits can be screened, identified, and addressed. The Social Skills Improvement System is an intervention in which practitioners and educators identify specific social skills in need of attention and participants can undertake particular intervention modules to address their needs (Gresham & Elliott, 2008). Young people's reading and mathematics abilities can also be screened, and those who perform at or below grade level can undergo targeted academic programs to enhance their academic abilities. For

instance, randomized clinical trials of Read 180, an academic intervention program, have shown improvements in reading achievements among low-achieving incarcerated youth (Zhu, Loadman, Lomax, & Moore, 2010).

## Limitations

There are limitations to this study that may affect the generalizability of the findings. Although a strength of the study is that data were collected from multiple facilities, all of them were in a single state and findings may not generalize to youth in facilities across different geographic locations. As well, all participants were male, so findings may not generalize to females. This study is also based on retrospective self-reported data from young people who were incarcerated at the time of data collection, which may lead to a response bias. We also recognize some limitations of the use of our measure of school experience. In this study, we based this construct on a single question asking participants to rate the degree to which they liked school. Although such a question provides an overall scale of the quality of one's school encounters, the question subsumes specific factors such as the quality of their teachers and peer relationships as well as their perceptions of school environment. The lack of details limits the understanding of the richness of the school encounters of JSOs and GDs. Additionally, special education status was measured by attendance in special education classes. It is possible that students will have unaddressed special education needs that were not identified. Thus, special education status may be under-identified in this study's sample.

Lastly, this is a simple cross-sectional study and as such, has the lowest confidence in explaining causality. Studies that have secondary sources, such as school grade reports or psychological assessment reports, as well as longitudinal data, could further strengthen the conclusions drawn from this study. However, the availability of such data on samples of JSOs and GDs are a challenge to access due to a variety of social and legal constraints. Nonetheless, in spite of these limitations, given the relative lack of research on the educational experience of young offenders, this research is among the first to provide valuable insights into their schooling experience.

## Conclusion

Few studies have examined the link among school-related factors and delinquency among JSOs and GDs. Findings highlight the need for child and adolescent work to focus on promoting youth school experiences and social-communicative and academic abilities. Results illustrate that these have varying relations with delinquency among JSOs and GDs.

Furthermore, we recommend that future studies build on this study to examine more deeply the relations among race, school factors, and delinquency among JSOs and GDs. Studies are also needed to explicitly test and compare the potential for school experience to mediate the relations among social-communicative and academic factors and delinquency among JSOs and GDs. Findings advance the limited research on school-based factors and delinquency on youth who committed sexual offenses.

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