Relations Between Peer Influence, Perceived Cost Versus Benefits, and Sexual Offending Among Adolescents Aware of Sex Offender Registration Risk

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Abstract

A policy’s general deterrent effect requires would-be offenders to be aware of the policy, yet many adolescents do not know they could be registered as sex offenders, and even adolescents who do know may still commit registerable sexual offenses. We tested whether peer influences shape the perceived costs/benefits of certain sexual offenses and, subsequently, registration policy’s general deterrent potential in a sample of policy-aware adolescents. The more adolescents believed their peers approve of sexting of nude images, the more likely they were to have sexted. For forcible touching, having more positive peer expectations about sex and perceiving forcible touching as more prevalent among peers related to adolescents’ likelihood of engaging in that behavior. Perceiving registration as a possible consequence was unrelated to sexual offending. Findings highlight the nuanced roles peers play in adolescent sexual decision-making and support emerging evidence that juvenile registration policy has limited general deterrent efficacy.

Keywords: sexual offending, registration, adolescents, public policy, deterrence
Relations Between Peer Influence, Perceived Costs versus Benefits, and Sexual Offending

Among Adolescents Aware of Sex Offender Registration Risk

Despite debate over whether even adults should be required to register as sex offenders (Sandler et al., 2008), juvenile sex offender registration policy is prevalent. Experts estimate that the number of sex offenders who were registered as juveniles across the U.S. ranges from 37,000 to hundreds of thousands (Stern et al., 2019). At least 39 states have some form of policy requiring adolescents who are adjudicated delinquent or convicted of sexual offenses to register their personal information (e.g., address, photograph) with local law enforcement agencies, and 25 states include youth in publicly available sex offender websites or “registries” (Pickett et al., 2020). As one example, in Virginia, adolescents as young as 14 years old are required to register as sex offenders for touching someone’s sexual body parts against that person’s will or when the person is under the influence of substances or too young to consent to being touched. Whereas forcible touching is inarguably problematic, other behaviors that are more developmentally normative can also lead to registration on a public website in Virginia, including when adolescents aged 14 to 17 take sexual pictures or videos of themselves or send such pictures to other same-aged adolescents (see VA § 9.1-902 and subsections therein). Thus, juvenile sex offender registration is a serious, complex, and controversial policy problem.

Registration policies inherently presume both specific and general deterrent functions. With regard to the former, research shows little to no effect of sex offender registration when comparing rates of adolescent sexual recidivism rates either before or after policy implementation (Letourneau et al., 2009), registered to nonregistered juveniles (Caldwell & Dickinson, 2009; Letourneau & Armstrong, 2008), or juvenile sexual offenders to nonsexual offenders (Caldwell, 2007; Zimring et al., 2007). Studies on potential general deterrent effects suggest registration risk
also does not reduce the likelihood that adolescents will offend in the first place. Specifically, Letourneau and colleagues (2010) observed no evidence of sex offender registration as a general deterrent after South Carolina adopted the policy for juveniles. Two other studies of the effects of newly implemented juvenile registration policies also found no change in rates of juvenile sexual crime reporting in four states (Idaho, South Carolina, Utah, and Virginia; Sandler et al., 2017) nor rates of first-time sexual offense charges or adjudications for youth in two states (Maryland and Oregon; Letourneau et al., 2019).

Deterrence theory (Robinson & Darley, 2004) suggests that for would-be offenders to be deterred from offending, they must first know that a punishment exists. However, many adolescents fail to clear this initial hurdle: prior research shows that nearly half of 14- to 17-year-olds are unaware that adolescents may be registered as sex offenders in the U.S. (Cleary & Najdowski, 2020). However, studies comparing youth who do versus do not know about potential legal consequences have yielded mixed evidence that policy awareness is key to deterrence. One survey revealed that young adults who were aware that sexting could be prosecuted as child pornography were less likely than others to report they had sexted as juveniles (Strohmeier et al., 2014). In addition, 59% who did not know about the potential for prosecution claimed that, had they known, they would have been deterred from sexting as adolescents. In contrast, two other studies showed that current awareness of sex offender registration risk was not associated with lower rates of self-reported past offending in young adults (Stevenson et al., 2013) or legal minors (Cleary & Najdowski, 2020).

It remains unclear why registration policy may or may not deter sexual offending even among policy-aware potential adolescent offenders. To address prior inconclusive findings, we turn again to deterrence theory. Robinson and Darley (2004) posit a second hurdle to deterrence:
beyond knowing about a sanction, would-be offenders must further expect the costs of the illegal behavior to outweigh the benefits. Following arguments proposed by Najdowski et al. (2016), this study investigates the possibility that adolescents are developmentally predisposed to fail at this second hurdle because of at least one facet of psychosocial immaturity: susceptibility to peer influence. Specifically, we investigate whether peer beliefs, attitudes, and behavior condition deterrence by changing adolescents’ perceptions of the risks and benefits that may result from risky sexual behavior.

**Peer Influence and Perceived Costs versus Benefits of Sexual Offending**

It is well-established that adolescents are more susceptible than adults to peer influence across many developmental tasks and contexts (National Academies of Sciences, 2019). There are also individual differences in the ability to resist peer influence across adolescents as they develop and mature (Steinberg & Monahan, 2007). This must be accounted for in adolescent sexual offending because youth operate in a context in which many of their peers are engaging in illegal, yet consensual, sexual activities with similar-aged peers (Temple et al., 2012). For instance, most adolescents have sexual partners who are also adolescents (Kaestle et al., 2002), yet this sexual activity could constitute statutory rape depending on age differentials specified by state law. As another example, “sexting” (i.e., sending sexually explicit messages) appears increasingly common among adolescents, with estimates as high as 30% to 43% (see Handschuh et al., 2019, and Madigan et al., 2018, and studies therein).

At the same time that consensus has emerged that adolescent sexual activity is developmentally normative (Tolman & McClelland, 2011), it has become increasingly clear that youths’ risky decision-making and propensity for delinquent behavior is connected to their difficulties with resisting peer influence. For example, adolescents make riskier decisions (e.g.,
gambling) when their peers are watching (Smith et al., 2014), and the more peers morally approval of a behavior, the more likely adolescents are to conform to those peer beliefs (e.g., by using alcohol; Ragan, 2014). These peer effects extend to sexual behaviors as well. Youth are more likely to engage in sexual activity when they (a) perceive sexual activity to be prevalent among their peers, (b) perceive that their peers approve of sexual activity, and (c) feel greater need to be popular. This is true even for sexual behaviors that carry legal risk, including sexting (Mori et al., 2019).

But how exactly are delinquency and risky sexual behavior affected by peer beliefs, attitudes, and behavior? One potential explanation is that peer influence affects decision-making, in part, by altering risk and benefit perceptions (Apel, 2013). Developmental neuroscience research casts risky adolescent behavior as an outcome of complex interactions between the earlier-developing limbic brain structures that drive sensation-seeking behavior and the later-developing cortical brain structures that control executive functions (National Academies of Sciences, 2019). Notably, adolescents exhibit differential reward processing in the striatum, a brain structure heavily involved in motivation and perceptions of reward. Risk taking is partly driven by sensation seeking, defined as “an increased attraction toward novel and intense sensations and experiences despite their possible risks” (National Academy of Sciences, 2019, p. 52). Sensation seeking increases between preadolescence and late adolescence (Steinberg et al., 2018), while cortical brain regions governing impulse inhibition and self-regulation do not structurally mature and integrate with other cortical systems until emerging adulthood (National Academies of Sciences, 2019). Further, adolescents’ ability to exercise self-restraint is context-dependent, such that they are more likely to give in to impulses in emotionally arousing contexts (Icenogle et al., 2019), which sexually relevant situations are likely to be. Thus, youth may be neurobiologically compelled to
attend to the expected rewards of peer social forces and sexual behaviors while simultaneously discounting the potential risks, legal or otherwise.

Youths’ developmentally driven differences in reward sensitivity and risk perception have important ramifications for understanding the deterrent potential of juvenile sex offender registration policy. Theory suggests that deterrence is likely only when a would-be offender expects the costs of offending to outweigh the benefits (Robinson & Darley, 2004). Central to this calculus is the perceived risk, or estimated probability, of punishment. Indeed, risk estimations play a critical role in deterrence. For instance, Paternoster and Iovanni (1986) showed that high school students who estimated a higher likelihood of getting caught by the police for delinquent offenses were less likely to commit those offenses over the next six months (see also Loughran et al., 2011). On this basis, sex offender registration and notification could be expected to deter adolescents’ sexual offending when the anticipated potential costs of sanctions for their sexual behavior outweigh the expected gains. However, developmental science suggests that the perceived social and physical benefits of peer approval associated with certain sexual behaviors, which typically involve a similar-aged peer, might outweigh the legal risks associated with getting caught. Further, adolescents with lower resistance to peer influence may be more likely to discount the risk of negative consequences potentially resulting from sexual activity. That is, the actual or perceived prevalence of offending among one’s peers might undermine the deterrent impact of registration by making an adolescent perceive legal sanctions as a relatively low probability event and, in turn, increase that adolescent’s likelihood of offending. In support, Nygaard and colleagues (2003) found that, as with sexual behaviors (Cleary & Najdowski, 2020), few adolescents were aware of the specific legal consequences of intoxicated driving. Moreover, (a) perceiving that others drink and drive and (b) believing legal enforcement was unlikely were both associated with
increased likelihood of this risky behavior among adolescents. These findings have important implications for the deterrent potential of sex offender registration policies, given that many adolescents engage in illegal sexual behaviors, and few adolescents are expected to know others who experienced legal repercussions for sexual offending (e.g., only 5% of young adults in Strohmaier et al., 2014). In total, the limited existing work testing whether policy awareness can deter adolescent sexual offending offers mixed findings.

Current Study

Prior work on the ability of policy awareness to deter adolescent sexual offending may be better understood by integrating deterrence principles with developmental psychological science related to resistance to peer influence in adolescents—the specific population targeted by juvenile registration policies. We propose that peer influence is a critical component of psychosocial maturity when it comes to adolescents’ sexual offending—that adolescents’ perceptions of their peers’ sexual attitudes and behaviors shape their own perceptions of legal risk for certain sexual behaviors. We argue that adolescents who are more psychosocially mature—in terms of better resistance to peer influence—may be more responsive to sex offender registration laws, whereas psychosocially immature adolescents—those who are more susceptible to peer influence—are less likely to be deterred by their registration awareness. Therefore, the present research tested two hypotheses. First, we expected that sexual offending would relate to (a) perceived peer approval of sexual activity as well as (b) perceived prevalence of the illegal behaviors among peers. That is, we hypothesized that the more they believe their peers approve of sex and the more prevalent adolescents perceive certain sexual behaviors to be, the more likely they will be to engage in those behaviors despite knowing the legal risks. Second, drawing from theory (Apel, 2013) and prior research (Pogarsky et al., 2004, 2005), we proposed that peer influence alters the cost-benefit
calculus involved in the second hurdle of deterrence by affecting perceptions that sanctions will actually occur. In other words, we hypothesized that, among adolescents who are aware of the legal consequences associated with certain sexual behaviors (e.g., sex offender registration), those who perceive greater peer approval for sex and perceive risky sexual behaviors as prevalent among peers will perceive the potential costs of registration as less probable, and, in turn, be less likely to be deterred from sexual offending.

To test these hypotheses, we observed a diverse sample of 14-to 17-year-olds who demonstrated awareness about juvenile registration policy to examine whether peer influences and perceived costs versus benefits of sexual offending shaped likelihood of committing sexual offenses. We tested direct and indirect effects of three peer influence variables (perceived sexual norms, positive peer expectations, and perceived prevalence of peer offending) and perceived likelihood of registration on two separate sexual offenses: sexting of nude images and forcible touching. By measuring psychological and criminological variables together in the context of different types of sex offenses, this research shows that one psychosocial maturity construct—susceptibility to peer influence—conditions the general deterrent potential of registration knowledge on adolescents’ registerable sexual behaviors in complex ways. Findings suggest a potential explanation for inconsistent results from past research while also illuminating potential pathways for improving the criminal justice response to adolescent sexual offenders.

Method

Participants

Participants were 92 adolescents aged 14 to 17 years old, drawn from a larger study of youth (masked for review). Eligibility was based on age (i.e., 14 to 17 years old) and long-term residence in Virginia (i.e., at least the past year) due to the (a) minimum age at which adolescents
may be registered as sex offenders in this state; (b) upper age of juvenile court jurisdiction; and (c) assumption that only residents could be expected to know state laws. Given our interest in understanding effects of criminological and developmental variables on sexual behavior in policy-aware youth (i.e., testing the second hurdle in Robinson and Darley’s, 2004, model), only youth who knew juveniles could be registered as sex offenders in Virginia were included in the present study. Of the 92 adolescents included in this sample, 23 (25%) were 14 years old, 21 (23%) were 15 years old, 22 (24%) were 16 years old, and 26 (28%) were 17 years old (M age = 15.55 years, SD = 1.15). The sample included approximately equal numbers of girls (n = 41, 45%) and boys (n = 51, 55%) and most youth identified as Black (n = 62, 67%), with smaller subsamples of White youth (n = 18, 20%) and youth of other races/ethnicities (n = 10, 11%).

Materials and Measures

Participants completed an online questionnaire that included screening measures for eligibility and the perceived sexual norms scale, positive peer expectations scale, perceived prevalence of peer offending scale, perceived likelihood of registration scale, and registerable sexual behavior, as described next. Measures regarding sex offender registration and sexual behavior focused on two peer-related registerable sexual offenses: sexting of nude images and forcible touching. A licensed attorney verified the behaviors could result in sex offense charges and registration in Virginia.

Screening measures. Participants indicated their age, duration of residence in Virginia, and registration awareness (“In Virginia, can people under the age of 18 be placed on the sex offender registry?”: Yes or No).

Perceived sexual norms scale. Participants indicated their agreement on three items measuring perceived sexual norms. Two items were adopted from Reyna and Mills (2014): “Most
of my friends believe it's okay for people my age to have sex with a steady boyfriend or girlfriend” and “Most of my friends have not had sex yet” [reverse scored]). The other was constructed for this study (“Most of my friends believe it's okay for people my age to send others naked pictures of themselves”). Responses were given on five-point scales ranging from -2 (strongly disagree) to 2 (strongly agree) and averaged to form a scale ($\alpha = .60$, $M$ inter-item $r = .34$) with higher values indicating more permissive norms.

**Positive peer expectations scale.** Five items adapted from Ragan (2014) assessed beliefs related to expectations for positive peer outcomes following sex: “Kids who have sex have more friends,” “Having sex is a good way of dealing with your problems,” “Having sex makes you cool,” “Having sex lets you have more fun,” and “Having sex helps you get along with other people.” Participants indicated their agreement with these items on five-point scales ranging from -2 (strongly disagree) to 2 (strongly agree). Responses were averaged to form a scale that was reliable in Ragan’s research ($\alpha = .91$) and the present study ($\alpha = .90$, $M$ inter-item $r = .65$). Higher values reflect more positive expected peer outcomes regarding sex.

**Perceived prevalence of peer offending.** Following Pogarsky et al. (2005), participants reported their perceptions of the prevalence of relevant offending in their age group. Specifically, they answered “what percent of all teenagers have ever” engaged in sexting or forcible touching (measured separately). Responses were given on 10-point scales ranging from 1 (0–10% of all teenagers) to 10 (91–100% of all teenagers).

**Perceived likelihood of registration.** Modeled after Pickett et al.’s (2015) work on sanction perceptions, participants indicated the perceived likelihood of being registered as a sex offender if they engaged in the offenses under study. Specifically, they answered, “What is the percent chance that if you [engage in sexting or forcible touching] you will be caught and
registered as a sex offender?” Responses were given on 10-point scales ranging from 1 (0–10% chance) to 10 (91–100% chance).

**Registerable sexual behavior.** Consistent with Stevenson et al. (2013), participants reported if they had ever engaged in sexting or forcible touching. Specifically, participants answered yes or no to “Have you ever sent a naked picture of yourself or another teenager to someone by text, email, or social media?” and “Have you ever touched someone on the buttocks, genitals, or breasts without his or her permission?” We summed the number of affirmative responses for each behavior so that scores indicate the total number of registerable sexual behaviors participants had engaged in (from 0 to 2).

**Procedure**

A community-based research recruitment firm specializing in marginalized and vulnerable populations (including adolescents) was employed to recruit a diverse sample of youth in a Virginia metropolitan area. The study was advertised as examining “teens’ risky behavior and decision making” via flyers presented and posted at community sites and events (e.g., health clinics, parks and recreation activities). Steps were taken to ensure adolescents’ privacy and data confidentiality (e.g., we used divider screens, invited participants to skip questions, obtained a Certificate of Confidentiality). Upon study completion, participants were debriefed, thanked, and provided a $20 gift card as a token of appreciation.

**Results**

**Descriptive Findings**

On average, adolescents in our sample perceived sexual norms among their peers to be neither permissive nor restrictive ($M = .08, SD = .92$), although they generally disagreed that positive peer outcomes would result from sex ($M = -.95, SD = .91$). Even so, adolescents perceived
sexting and forcible touching to be rather prevalent among their peers. Table 1 shows descriptive statistics of perceived prevalence rates for each offense, which correspond to adolescents’ estimating that 49% of their peers had sexted and 48% had forcibly touched someone’s intimate parts without their permission. However, as also shown in Table 1, experiencing registration as a result of these behaviors was perceived as a less than chance proposition; average perceived likelihood of registration was 37% for sexting and 42% for forcible touching. Actual prevalence of these sexual offenses in this sample was lower than participants estimated, with 21% having sexted and 22% having forcibly touched someone (see Table 1). Overall, 65% of youth \((n = 60)\) had not committed either offense; however, 27% \((n = 25)\) had committed one and 8% \((n = 7)\) had committed both.

[INSERT TABLE 1 HERE]

**Bivariate Associations among Study Variables**

As presented in Table 2, a zero-order correlation analysis revealed a significant positive association between the perceived sexual norms scale and positive peer expectations scale: the more permissive adolescents believed sexual behavior norms to be, the more positive expectations they had for peer outcomes following sex. Further, whereas perceiving sexual norms as more permissive was associated with higher estimates of peer offending for both sexting and forcible touching, expecting more positive peer outcomes from sex was related to higher perceived prevalence of peer sexting only, not forcible touching. In terms of behavior, perceiving sexual norms to be more permissive among one’s peers was related to engaging in sexting but not forcible touching. In contrast, expecting more positive peer outcomes as a result of engaging in sex was associated with engaging in forcible touching but not sexting. For both offending behaviors, however, the more prevalent adolescents perceived the behavior to be among their peers, the more
likely they were to do it themselves. Even so, none of the peer scales significantly correlated with perceived likelihood of registration for sexting or forcible touching. Perceived likelihood of registration also was not significantly associated with actual behavior for either offense type.

[INSERT TABLE 2 HERE]

**PROCESS Models Predicting Self-Reported Sexual Offending**

We used the PROCESS regression macro (model 4 from Hayes, 2018) with percentile bootstrapping based on 10,000 samples to account for multiple effects and test our mediation hypotheses. The PROCESS macro is a tool that facilitates complex regression analyses for testing diverse permutations of variables in SPSS and other statistical software platforms. The strength of this analytic tool is that it estimates the indirect associations of the independent variables and dependent variable through the proposed mediator while accounting for all possible direct and indirect effects. For each offense-specific model, we ran three separate analyses with the three peer-related variables entered alternately as the independent variable or covariate to estimate indirect effects of each peer-related variable on adolescents’ offending behavior as mediated by perceived likelihood of registration. Direct effects were identical regardless of whether the variables were treated as independent versus covariate variables.

Each of the full models significantly predicted adolescents’ offending behavior, explaining between 21% and 37% of variance in sexting and forcible touching, respectively. The associations between peer-related variables and offending remained complex (see Table 3 for all statistics). Perceived sexual norms significantly and positively predicted sexting, such that perceiving sexual norms among one’s peers to be more permissive was associated with adolescents’ greater likelihood of sexting. Neither the expected peer outcomes scale nor perceived prevalence of peer sexting significantly related to respondents’ own sexting, however. For forcible touching, the
perceived sexual norms scale did not significantly predict behavior, but the positive peer expectations scale and perceived prevalence of peer forcible touching did. Specifically, perceiving sexual norms to be more permissive among one’s peers and believing that more peers had engaged in forcible touching each related to greater likelihood that adolescents had forcibly touched someone’s intimate parts without permission.

[INSERT TABLE 3 HERE]

Finally, the peer scales did not significantly predict perceived likelihood of registration for either offense type, accounting for only 3% to 4% of adolescents’ perceptions of registration likelihood. Moreover, perceived likelihood of registration did not significantly relate to adolescents’ offending behavior, and none of the indirect effects of the peer scales on offending through perceived likelihood of registration reached significance. Thus, perceived likelihood of registration did not exhibit a deterrent effect for either registerable sexual offense.

**Discussion**

This study is the first to test individual-level developmental perceptions of peer influence when investigating the general deterrent potential of juvenile sex offender registration and notification policies, advancing scientific understanding of a complex and consequential social policy problem. We examined whether the risk perceptions that underlie the perceived costs and benefits of sexual behaviors are shaped by adolescents’ perceptions of peer influence in ways that make some youth more likely than others to be deterred by sex offender registration policy. Our first hypothesis was that adolescents’ engagement in sexual offenses relates to both the (a) perceived peer approval of sexual activity and (b) perceived prevalence of those behaviors among their peers. We hypothesized that greater expected peer approval and higher perceived prevalence
would relate to more engagement in the sexual behaviors of interest. This hypothesis was partially supported for the two sexual offenses we investigated, but in different ways.

First, adolescent sexting was predicted by perceived sexual norms, but not positive peer expectations for sex or perceived prevalence of sexting among peers. This finding is consistent with prior work reporting that adolescents who perceive their peers approve of sexual activity are more likely to sext (Houck et al., 2014). It may be that adolescents consider sexting a relatively harmless form of sexual expression, similar to a larger array of sexual behaviors considered acceptable by their peers. It also may be that adolescents conceptualize norms around different sexual activities in different ways. Our measure of perceived sexual norms included an item pertaining to sexting specifically, so it is possible that perceived peer approval of sexting specifically is a driver of engagement in that behavior. In contrast, our measure of positive peer expectations focused on “having sex” in general, which adolescents may construe as sufficiently different from sexting as to be unrelated to their proclivity toward this particular behavior. This is consistent with other research showing attitudinal differences across different types of sexual activities (Hoff et al., 2003). In the present sample, perceived peer approval of sexual behavior, including sexting, also appeared to be more important than adolescents’ beliefs about how common the behavior actually is, as perceived prevalence of sexting did not predict engagement in sexting. This association did not exist even though adolescent participants overestimated the prevalence of sexting behavior among their peers compared to actual reported sexting in this sample (49% versus 21%, as shown in Table 1), which was consistent with ranges identified in prior studies (Madigan et al., 2019). Thus, simply knowing that one’s peers are accepting of sexting, regardless of whether peers do it themselves, may be sufficient to increase the likelihood of this behavior.
We found an inverse pattern with regard to forcible touching. Perceived sexual norms did not relate to adolescents’ engagement in forcible touching, but both positive expected outcomes following sex and perceived prevalence of forcible touching among peers did. Notably, forcible touching presumably involves less mutually consensual participation and a greater degree of aggression than sexting (although sexts can certainly be unwanted and may even constitute cyberbullying; Ehman & Gross, 2019). As such, even if adolescents believe their peers approve of sex in general, forcible touching may not fall within the boundaries of what is considered socially acceptable, and other factors may play a larger role in adolescents’ decision-making around this behavior. In this regard, the findings related to forcible touching echo Nygaard and colleagues’ (2003) similar work investigating another risky behavior: intoxicated driving. They reported that youth generally believed their peers felt negatively about drinking and driving, but youth still believed the behavior was prevalent among their peers. Other work has shown that the more positive outcomes they expect from drinking and driving and the more prevalent youth perceive this behavior to be among their peers and, the more likely they are to do it themselves (Chen et al., 2008). This is concerning considering the excessively high rate at which adolescents in this study believed their peers are perpetrating forcible touching.

Overall, these findings highlight the heterogeneity of sexual behaviors that constitute registerable offenses under the law and underscore the importance of measuring them separately. Sexting and forcible touching displayed notably different patterns of associations with peer influence variables, which may reflect very different etiologies of offending. This is consistent with clinical studies showing that youth convicted of sexual offenses are a heterogeneous group in terms of personality traits, behavioral health needs, and other risk factors (Everhart Newman et al., 2019).
Our findings highlight the need for more in-depth explorations of offense-specific sexual behaviors.

Our second hypothesis was that peer influence would alter the perceived costs versus benefits of sexual offending by affecting adolescents’ perceptions that sanctions will actually occur. We expected that adolescents who anticipated greater peer approval for sexual behaviors and perceived the behaviors to be more prevalent among peers would perceive the potential costs of registration as less likely to occur, and, in turn, be less likely to be deterred from sexual offending. This hypothesis was not supported. None of our peer influence measures predicted adolescents’ perceptions of registration likelihood for either sexual offense, nor did they exhibit indirect effects on offending behavior through this deterrence-related construct. Perceived likelihood of registration did not significantly relate to adolescents’ offending behavior in isolation either. All together then, our mediation analyses indicated that perceived likelihood of registration did not exhibit a deterrent effect for either sexting or forcible touching.

We offer several interpretations of these findings as they relate to perceived costs versus benefits of engaging in registerable sexual behaviors. Prior theoretical (Robinson & Darley, 2004) and empirical work (Loughran et al., 2011) suggests that perceived costs and benefits are important to youths’ engagement in various forms of antisocial or delinquent behaviors. It is possible that adolescents’ perceptions that their peers approve of or engage in sexual behaviors are not salient enough to alter their estimates of the likelihood of being registered as a sex offender. Alternatively, it may be that irrespective of peer influence, risk of registration simply does not deter adolescents’ from engaging in certain registerable sexual behaviors. Perhaps measures that address other facets of peer influence as it relates to psychosocial maturity could help to uncover associations, but it
remains possible that even psychosocially mature adolescents who are aware of sex offender registration policies may not be deterred from sexual offending.

**Strengths, Limitations, and Future Directions**

Our work builds on a small but growing body of research broaching the question of whether sex offender registries can perform a general deterrent function. The present study advances the literature by involving a community sample of actual legal minors, directly accounting for adolescents’ state-specific registration policy awareness, and assessing multiple potentially registrable sexual offenses. Even so, several limitations should be noted. The study’s convenience sample, while representative of the community from which it was drawn, may or may not reflect policy awareness, attitudes, offending, or associations among these variables in youth across Virginia or the U.S. generally. Prior work reported few differences in policy awareness or registerable sexual behaviors as a function of adolescents’ age, gender, or race/ethnicity (Cleary & Najdowski, 2020) but replication efforts using larger samples from different areas may capture additional variation and inform more targeted education or intervention efforts to reduce sexual offending.

Next, we found only moderate reliability for the perceived sexual norms scale (α = .60). Although the scale did predict our outcome variable for one of the sexual offenses under investigation, a more comprehensive measurement of this construct may yield different or additional effects on adolescents’ self-reported sexual offending. Alternatively, it is possible that all peer influence variables should be tied specifically to the offense that researchers are attempting to predict. For example, our measure of perceived sexual norms included a sexting-specific item, whereas our measure for positive peer expectations for sex did not. Items specific to each sexual behavior may be necessary to capture norms around different sexual activities. This research area
would benefit from rigorous attention to the development and validation of measures of perceived sexual norms, positive peer expectations, and perceived prevalence of offending, which theory and prior research in nonsexual offending contexts suggest are important to adolescents’ decisions regarding risky behaviors (Ragan, 2014). Moreover, it is possible that adolescent participants may have misconstrued our forcible touching item as asking about touching without affirmative consent, as opposed to unwanted touching. Thus, work is needed to identifying best practices for measuring actual offending as well.

Third, although peer influence is a key component of psychosocial maturity, other components of this developmental construct are also likely important for understanding adolescents’ (in)ability to be deterred by sex offender registration. Just as future studies should appreciate the possibility that different sexual offenses have unique etiologies, different facets of psychosocial maturity may relate to the likelihood of engaging in different types of sexual offenses. For example, criminologists have long theorized that individuals who are strongly oriented toward present desires are less likely to be deterred from offending (Gottfredson & Hirschi, 1990). Additionally, impulse control likely relates to youths’ sexual behaviors, as recent neuroimaging studies identify links between adolescents’ developing capacities for response inhibition and their decision-making regarding risky sexual behavior (National Academies of Sciences, 2019). Future work that incorporates more comprehensive measures of psychosocial maturity while simultaneously appreciating the distinct features of different sexual behaviors would further explicate the role of developmental influences in general deterrence effects of sex offender registration policy.

Finally, the current study contributes to our understanding of relations between youths’ awareness of sex offender registration policy and their sexual behaviors, given the lack of even
foundational cross-sectional research on this issue, but longitudinal research is necessary to
determine causality. Instead of relating youths’ retrospective reports of past behavior to their
current knowledge and perceptions of registration risk, prospective studies could more precisely
determine whether policy awareness and psychosocial maturity at an initial measurement time
point cause reductions in rates of registerable sexual behaviors in the future.

**Implications for Policy and Practice**

From a policy perspective, it is essential to understand whether general deterrence of
adolescent sexual offending with registration policy is possible. In the years since sex offender
registration was extended to juveniles, research has shown it causes considerable harm among
registered youth and their families. Registered youth are more likely than nonregistered youth to
experience mental health problems, school problems, housing instability, relationship violence,
sexual victimization, suicidal ideation, and suicide attempts (Harris et al., 2016; Letourneau et al.,
2018). Registration proponents may argue that this policy’s specific and general deterrent value
outweighs those costs; thus it is incumbent on researchers to test this proposition. The present
study adds to the limited body of work suggesting that registration may serve no beneficial general
deterrent function to balance the psychological costs registered youth and their families are likely
to pay.

Our findings also highlight the need for additional supports to prevent sexual offending
among youth, especially as rates of behaviors like sexting are common among adolescents
(Madigan et al., 2018; Handschuh et al., 2019). In the present study, one-third of youth engaged in
sexual behaviors despite knowing the behaviors could lead to sex offender registration. Given the
effects we found of peer approval, positive peer expectations, and perceptions of peers’ sexual
behaviors, intervention efforts could harness the power of *positive* peer influence in developing
programs to reduce sexual offending. Also, similar to educational campaigns aimed at reducing binge drinking by educating college students about their overestimation of peers’ binge drinking (Carey et al., 2007), interventions might target adolescents’ misperceptions about the prevalence of risky sexual behaviors by educating them about true prevalence rates. Finally, existing sexual health programs tend to emphasize the physical and social repercussions of risky sexual activity (e.g., unintended pregnancy, sexually transmitted infections) but could incorporate discussion of legal consequences as well. Together, such strategies could help “right-size” adolescents’ understanding of how frequently these behaviors occur and, importantly, educate them about the serious and potentially lifelong legal consequences of engaging in them.
References


Table 1

*Descriptive statistics for perceived prevalence of peer offending, perceived likelihood of registration, and actual offending behavior*

<table>
<thead>
<tr>
<th>Questionnaire items</th>
<th>Sexting n</th>
<th>Sexting %</th>
<th>Forcible Touching n</th>
<th>Forcible Touching %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived prevalence of peer offending</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–10% of all teenagers</td>
<td>12</td>
<td>13%</td>
<td>8</td>
<td>9%</td>
</tr>
<tr>
<td>11–20% of all teenagers</td>
<td>3</td>
<td>3%</td>
<td>7</td>
<td>8%</td>
</tr>
<tr>
<td>21–30% of all teenagers</td>
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<td>9%</td>
<td>10</td>
<td>11%</td>
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<td>31–40% of all teenagers</td>
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<td>5%</td>
<td>7</td>
<td>8%</td>
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<td>11%</td>
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<td>7%</td>
<td>13</td>
<td>14%</td>
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<td>12</td>
<td>13%</td>
</tr>
<tr>
<td>81–90% of all teenagers</td>
<td>11</td>
<td>12%</td>
<td>9</td>
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<td>12</td>
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<td>$SD = 2.88$</td>
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<td>$M = 5.19$</td>
<td>$SD = 3.27$</td>
<td>$SD = 3.15$</td>
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<td>Actual offending behavior</td>
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<td>19</td>
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</table>
### Table 2

*Zero-order correlations among study variables (ns = 89–92)*

<table>
<thead>
<tr>
<th></th>
<th>Sexting</th>
<th>Forcible touching</th>
</tr>
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<tr>
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<tr>
<td>1. Perceived sexual norms scale</td>
<td>.41***</td>
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<tr>
<td>2. Positive peer expectations scale</td>
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<td>Sexting</td>
<td>3. Perceived prevalence of peer offending</td>
<td>.44*** .26**</td>
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<td></td>
<td>4. Perceived likelihood of registration</td>
<td>-.09 -.14 .03</td>
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<td></td>
<td>5. Self-reported behavior</td>
<td>.31** .06 .27** .04</td>
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<tr>
<td>Forcible touching</td>
<td>6. Perceived prevalence of peer offending</td>
<td>.38*** .09 .70*** .07 .15</td>
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<tr>
<td></td>
<td>7. Perceived likelihood of registration</td>
<td>.09 -.13 .19 .63*** -.01 .09</td>
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<tr>
<td></td>
<td>8. Self-reported behavior</td>
<td>.16 .34*** .34*** .00 .18 .35*** .00</td>
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</tbody>
</table>

*** $p \leq .001$. ** $p \leq .01$. * $p \leq .05$. 
### Table 3

**PROCESS Models Testing Direct and Indirect Effects on Adolescent Sexual Offending**

<table>
<thead>
<tr>
<th>Offense-specific perceived likelihood of registration</th>
<th>Offending behavior</th>
</tr>
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<tbody>
<tr>
<td><strong>Direct effects</strong></td>
<td><strong>Direct effects</strong></td>
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<tr>
<td>Coefficient</td>
<td>95% CI</td>
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<tr>
<td>Sexting</td>
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<tr>
<td>Perceived sexual norms scale</td>
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<td>Positive peer expectations scale</td>
<td>-.47</td>
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<td>Perceived prevalence of peer offending</td>
<td>.12</td>
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<tr>
<td>Perceived likelihood of registration</td>
<td>--</td>
</tr>
</tbody>
</table>

|  | \(F(3, 87) = .87, p = .46\) | \(R^2 = .03\) | \(\chi^2(4, 87) = 13.45, p = .009\) | Nagelkerke \(R^2 = .21\) |
| Forcible touching  |
| Perceived sexual norms scale | .51  | -.34, 1.36 | -.68  | -1.58, .23 | .01  | -.14, .20 |
| Positive peer expectations scale | -.65  | 1.45, .15 | **1.30**<sup>b</sup> | **.50, 2.10** | -.02  | -.22, .14 |
| Perceived prevalence of peer offending | .06  | -.19, .31 | **.49**<sup>c</sup> | **.19, 79** | .00  | -.03, .04 |
| Perceived likelihood of registration | --  | --  | .03  | -.16, .22  | --  | --  |

|  | \(F(3, 87) = 1.26, p = .29\) | \(R^2 = .04\) | \(\chi^2(4, 87) = 24.82, p = .0001\) | Nagelkerke \(R^2 = .37\) |

*Note.* CI = confidence interval. Significant associations are presented in bold font. <sup>a</sup> \(p = .03\). <sup>b</sup> \(p = .002\). <sup>c</sup> \(p = .001\).