Sexuality, Antisocial Behavior, Aggressiveness, and Victimization in Juvenile Sexual Offenders: A Literature Review

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Abstract

The present review focuses on six factors that have been addressed in the literature about juvenile sexual offenders[1]: general delinquency, alcohol and drug abuse, aggressiveness and psychopathology, sexuality, sexual deviance, and victimization experiences. Empirical findings are characterized by great heterogeneity. Due to a lack of standardized assessment and because of different study groups they rarely facilitate direct comparisons. In an endeavor to clarify this vast heterogeneity, the purpose of this overview is to enlighten actual findings about these factors and on the role that has been assigned to them in the literature. Special attention is paid to comparison studies. A detailed description of the studies in tables[2] allows for an overview of the results and an evaluation with respect to sample size, instruments, and type of study groups. The overview does not claim completeness; it is a narrative, none-systematic review[3]. In summary the review showed that in most cases, juvenile sexual offending cannot be understood as an expression of more general juvenile delinquency and - in contrast to other groups of juvenile delinquents - the sexual offenders report less non-sexual delinquent behavior. Alcohol and drug abuse have been reported less often as well, but they might play a more important role as situational factors. Externalizing problems apears more often in juvenile sexual offenders with peer/adult victims who are also non-sexually delinquent. Regarding sexuality, some studies indicate that juvenile sexual offenders are impaired in their sexual development, but they were rarely described as sexually isolated. Sexual deviance has been considered a risk factor for juvenile sexual offending, but the assessment of sexual deviance in juveniles has proven difficult. The prevalence of victimization experiences varies substantially and possible connections to sexual offending have proven complex. The interpretation of the results of most studies is compromised by a lack of data about non-delinquent juveniles. The review closes with explanations why some of the illustrated results vary substantially.

Key words: juvenile sexual offenders, risk assessment

General Delinquency

Discussions regarding the question, whether the sexually aggressive act is an expression of a more general juvenile delinquent behavior, have proven to be controversial. Many studies have reported high rates and a wide range of further delinquent behavior (Ronis & Borduin, 2007; Ryan, Miyoshi, Metzner, Krugman, & Fryer, 1996)[1)2)] *(see Table 1 for a more detailed description of the studies)*. Recidivism risk after treatment has been found to be higher for non-sexual delinquency than for further sexual offenses in a large national group of juvenile sexual offenders (Ryan et al., 1996). Also, a delinquent history has been found to be the strongest predictor for being attracted to sexual aggression in non-offenders (Calhoun, Bernat, Clum, & Frame, 1997)[3)]. Association with delinquent peers has been described as the best predictor of sexual aggression in youth (Ageton, 1983 as cited by Calhoun et al., 1997). However, pre-offense non-sexual delinquency was low in some

studies, possibly due to differences in type of the investigated offender groups (e.g. Smith & Monastersky, 1986)[4].

In a German study, juvenile sexual offenders displayed less antisocial behavior than juvenile violent offenders in several areas (Hinrichs, Köhler, & Kraft, 2008)[5]. A recent meta-analysis of studies that compared adolescent sexual offenders with non-sexual offenders showed that sexual offenders had a less extensive criminal history and lower scores in conduct problems (only in sources other than self-report), but both groups had relatively high values in these domains. No differences were found across the studies for antisocial tendencies (personality traits, attitudes and beliefs) except for antisocial associations with e.g. peers, which were reported less for the sexual offenders. Interestingly, antisocial attitudes and beliefs were not different when corresponding to attitudes and beliefs about sex, women, or sexual offending, but were lower in sexual offenders when corresponding to none of these topics. The authors describe that the results do not support a general delinquency explanation of sexual offending in juveniles (Seto & Lalumière, 2010).

It has been stated before that the factors influencing sexual aggression and delinquency stem from the same origin (Calhoun et al., 1997). A comparison of sexually aggressive juveniles with and without a history of non-sexual delinquency, however, revealed different psychosocial backgrounds (Butler & Seto, 2002)[6].

The results summarized here suggest that general antisocial or delinquent behavior plays a role in sexual aggression in youth. Nevertheless, the sexual aggression can only in rare cases be understood as an expression of this general delinquency (Saunders & Awad, 1991; Zakireh, Ronis, & Knight, 2008) or of an "exploitative attitude towards others" (Figueredo, Sales, Russell, Becker, & Kaplan, 2000). In comparison to other offender groups, the juvenile sexual offenders seem to be generally delinquent less often and to a smaller extent.

Table 1: General Delinquency[a]

Studies	Participants	Instruments	Results
1) Ronis & Borduin (2007)	23 JSO (peer/adult victims) 23 JSO (child victims) 23 VNO[b] (all groups at least one arrest)	Arrest records	Additional non-sexual delinquency: - 94% (JSO, peer/adult victims) - 89% (JSO, child victims) - 100% VNO
2) Ryan, Miyoshi, Metzner, Krugman, & Fryer (1996)	1.616 JSO[c] referred for evaluation or treatment	Uniform Data Collection System (UDCS)	- Recidivism risk after treatment lower for sexual than for non-sexual delinquency - 63% also non-sexual crimes - 28% more than three non-sexual crimes
3) Calhoun, Bernat, Clum, & Frame	65 non-offenders (mean age~20y)	Sexual Experience Survey (SES),	Delinquency best predictor for *attraction*

(1997)		Youth Self Report (YSR)	*to sexual aggression* and predictor for *sexual coercion*
4) Smith & Monastersky (1986)	112 JSO referred to a community evaluation program	Police reports, Juvenile Sexual Offender Decision Criteria	- 13% non-sexual delinquent behavior (≥2 property offenses, ≥1 violent offense) - 43% antisocial behavior
5) Hinrichs, Köhler, & Kraft (2008)	54 JSO 50 NVO (inpatient treatment)	File review with a documentation system (BADO)	JSO less antisocial behavior than NVO: stealing in childhood (11% vs 32%), stealing in adolescence (60% vs. 93%), robbery (25% vs. 71%), burglary (29% vs. 71%), fighting (68% vs. 98%), blackmailing (27% vs. 73%), aggressive behavior (61% vs. 90%)
6) Butler & Seto (2002)	22 JSO (only sex offense) 10 JSO (sex offense plus other offense)	Criminal Sentiments Scale (CSS), YO-LSI (Risk for Future Delinquency), Checklist after DSM-IV, Youth version of Child Behavior Checklist	JSO (only sex offense): - fewer current behavior Problems - more prosocial attitudes and beliefs - lower expected risk for future delinquency - fewer childhood conduct problems

[a]Only those groups of participants and instruments are given in the table, that are relevant for the results illustrated.
[b]VNO=Violent, Non-sexual Offenders (juvenile)
[c]JSO=Juvenile Sexual Offenders

Alcohol and Drug Abuse

Alcohol and drug abuse by juveniles themselves or by their parents have been considered as risk factors for sexual offending (Smith, Wampler, Jones, & Reifman, 2005). In the literature, the proportion of juvenile sexual offenders who use alcohol and drugs ranges from 6% to 72% (Pratt, 2001). The proportion of juveniles who commit their offenses under intoxication varies substantially as well (Saunders & Awad, 1991), although alcohol and drug abuse is often reported as a disinhibiting or situational contributor to sexually aggressive behavior in etiological theories (e.g. Marshall & Marshall, 2000). Nevertheless, the influence of alcohol and drug abuse on sexual offending remains unclear and insufficiently investigated (Righthand & Welch, 2001). Meanwhile,

the association between general delinquency and alcohol and drug abuse is considered to be consistent (Marie, Poulin, Kiesner, & Dishion, 2009). However, some studies found that substance abuse did not play a substantial role in sexual offenses against minors (Groth, 1977; Saunders & Awad, 1991). Comparable studies revealed that juvenile sexual offenders consumed less alcohol and drugs compared to non-sexual, violent juvenile delinquents (Fagan & Wexler, 1988; Hinrichs et al., 2008; Milloy, 1994)[1)2)3)] *(see Table 6 for a more detailed description of the studies)*. The aforementioned meta-analysis yielded the same results with no difference between the use of alcohol and drugs (Seto & Lalumière, 2010). However, no differences between offender groups (Van Wijk et al., 2005)[4)], but higher values of alcohol and drug abuse of juvenile sex offenders compared to a non offender group has been reported (Bagley, 1992)[5)]. In a study with non-delinquents, the most serious self-reported sexual aggression was found in those who consumed alcohol frequently (Koss & Dinero, 1988)[6)]. Elsewhere, alcohol and drug abuse was found to directly influence sexual coercion (Johnson & Knight, 2000)[7)]. The authors conclude that the role of alcohol in sexual aggression of juveniles might have been underestimated in the past. It seems to be evident that alcohol (more than drugs) influences the sexual arousal of juvenile sexual offenders (Becker & Stein, 1991)[8)]. The authors emphasize the importance to investigate a possible interaction between substance use and sexual offending. Altogether, alcohol and drug abuse seems to play a minor role in juvenile sexual offending compared to non-sexual offending, but it can be assumed that both play an important role as a situational factor.

Table 2: Alcohol and Drug Abuse[a]

Studies	Participants	Instruments	Results
1) Fagan & Wexler (1988)	34 JSO[b] 208 NVO[c] (retrieved from court)	“Interviews”	JSO less alcohol and drug abuse than NVO
2) Hinrichs, Köhler, & Kraft (2008)	54 JSO 50NVO (inpatient treatment)	File review	JSO less alcohol (36% vs. 64%) and drug (35% vs. 73%) abuse than NVO
3) Milloy (1994)	59 JSO 197 NVO/NNO[d] (rehabilitation facilities)		JSO more often no use of alcohol (38% vs. 14%) and drugs (38% vs. 12%) than NVO/NNO
4) Van Wijk et al.(2005)	39 JSO (hands-on) 430 NVO	Child Behavior Checklist (CBCL)	No group differences
5) Bagley (1992)	60 JSO 322 juveniles (both in residential treatment)	file review protocol	JSO more alcohol and drug abuse
6) Koss & Dinero (1988)	(n=2972) college students	Questionnaire, Rape Supportive Belief	most serious self-reported sexual aggression found in those, who consumed alcohol frequently
7) Johnson & Knight (2000)	122 JSO (inpatient treatment)	Multidimensional Assessment of Sex and	alcohol and drug abuse had direct influence on sexual

		Aggression (MASA)	coercion in path-model
8) Becker & Stein, (1991)	160 JSO	„Structured clinical interview“	- 62% reported to consume alcohol, 80% (of those) said this would influence their sexual arousal, 11% said it would raise their arousal, they also had more victims - 39% reported drug abuse, 23% (out of those) reported increased sexual arousal

[a] Only those groups of participants and instruments are given in the table that are relevant for the results illustrated here.
[b] JSO= Juvenile Sexual Offenders
[c] VNO=Violent, Non-sexual Offenders (juvenile)
[d] NNO= Non-violent, Non-sexual Offenders (juvenile)

Aggressiveness and Psychopathology

Antisocial behavior, impulsivity or aggressiveness and aggressive attitudes, respectively, are regarded as to be meaningful in the context of sexually offensive behavior among juveniles (Ageton, 1983; Gretton, McBride, Hare, O'Shaughnessy, & Kumka, 2001; Ryan et al., 1996; Zakireh et al., 2008; Zolondek, Abel, Northey, & Jordan, 2001). Aggressive behavior has been reported to occur before the first sexual offense in 43% of investigated offenders (Smith & Monastersky, 1986). Moreover, violent sexually offending juveniles have been reported to be at higher risk of sexual reoffending (Sipe, Jensen, & Everett, 1998). For adolescents with child victims, however, the association between aggressiveness and sexual reoffending is much less clear (Daversa & Knight, 2007) or even points in the opposite direction. Psychological and social pressure has been described to be used by some of this group rather than violence. For some, emotional disturbance and psychosocial deficits might be of more importance than antisocial tendencies (Groth, 1977; Hunter, Figueredo, Malamuth, & Becker, 2003).

Conduct problems and antisocial attitudes have been found to be associated with general offending (sexual and other crimes) (Butler & Seto, 2002)[1)], while those who almost exclusively offend sexually have been described as having rather socially isolated and schizoid personality styles (Andrade, Vincent, & Saleh, 2006). Further findings indicate, that aggressiveness was related to high risk assignment (Smith et al., 2005)[2)] *(see Table 2 for a more detailed description of the studies)*. Elsewhere, maladjustment was found to be present more often in cases of non-sexual rather than sexual recidivism (Smith & Monastersky, 1986)[3)]. The authors of this study, however, considered it possible that the adjustment was just seemingly and ostensibly better. Altogether it seems reasonable, that some factors (e.g. impulsivity, psychopathy, antisocial personality) are associated with recidivism risk, but predominantly with general delinquency (Zakireh et al., 2008).

Comparison studies yielded contradictory results: some studies report more emotional problems and aggressiveness in juvenile sexual offenders than in non-sexual juvenile delinquents (Bagley, 1992; Blaske, Mann, & Henggeler, 1989; Caputo, Frick, & Brodsky, 1999)[4)5)6)],whilst others report lower rates (Blaske et al., 1989; Kempton & Forehand, 1992; Oliver, Nagayama, & Neuhaus, 1993)[5)7)8)]. Again, other studies found no differences between the groups[4] (Awad, Saunders, & Levene, 1984; Caputo et al., 1999; Zakireh et al., 2008)[9)6)10)]. Consequently, individual

maladjustments (e.g. anxiety, aggressiveness) have been described as typical for juvenile delinquents but not specific for sexual offenders (Ronis & Borduin, 2007). However, in a recent meta-analysis psychopathology was found more often in the juvenile sexual offender group than in non-sex offenders (significantly for anxiety and low self-esteem, non-significantly for general psychopathology, depression, psychotic symptoms, and suicidal tendencies) (Seto & Lalumière, 2010).

Rates of psychiatric disorders reported in the literature range from 37% to 87% according to Epps et al. (2004). One study yields low rates of serious psychiatric disorders (except for conduct disorder) (Kavoussi, Kaplan, & Becker, 1988)[11], while two others have found a wide range (Galli et al., 1999; Saunders & Awad, 1991)[12][13].

Furthermore, juvenile sexual offenders with child victims were reported to resemble non-sexual violent offenders in general less than other sexual delinquents with peer victims do (Van Wijk et al., 2005). Juvenile sexual offenders with peer victims were reported to show more antisocial behavior (Richardson, Kelly, Bhate, & Graham, 1997). According to Van Wijk et al. (2006), data about psychopathology in juvenile sexual offenders are inconsistent, but it can be assumed that internalization problems do exist, potentially most probable among sex offenders with child victims. Considering the results introduced here, it can be concluded that externalizing problems predominantly play a role in juvenile sexual offenders with peer/adult victims that are also non-sexually delinquent.

Table 3: Aggressiveness and Psychopathology[a]

Studies	Participants	Instruments	Results
1) Butler & Seto (2002)	22 JSO[b] (only sex offense) 10 JSO (sex offense plus other offense)	Youth version of Child Behavior Checklist	JSO (only sex offense): - fewer conduct problems at age=6 - less antisocial attitudes and beliefs
2) Smith, Wampler, Jones, & Reifman (2005)	161 alleged JSO Divided into risk groups according to static criteria: low-risk: n = 46 medium-risk: n = 48 high-risk: n = 67	Aggression Questionnaire (AQ) Rosenberg Self-Esteem Scale (RSE) Social Avoidance and Distress Scale (SADS) Impulsivity Scale for Children (ISC)	JSO in high risk group: - more aggressiveness - less self-esteem - more social avoidance - no differences in impulsivity
3) Smith & Monastersky (1986)	112 JSO referred to a community evaluation program	Police reports, Juvenile Sexual Offender Decision Criteria	After at least 17 months of “observation”: - juveniles who reoffend sexually had more indicators of depression
4) Bagley (1992)	60 JSO 322 juveniles (both in residential treatment)	file review protocol	JSO more: - self concept problems - aggressiveness against father, anxiety, depression, hyperactivity

			or restlessness
5) Blaske, Mann, & Henggeler (1989)	15 JSO 15 NVO 15 NNO (all at least 1 arrest) 15 non-delinquent controls	Symptom Checklist-90-Revised (SCL-90-R), Unrevealed Differences Questionnaire-Revised (URD-R)	- JSO more ruminative-paranoid symptoms than NVO - JSO more anxiety than all other groups - JSO less socialized-aggression than NVO
6) Caputo, Frick, & Brodsky (1999)	23 JSO (hands-on) 17 NVO[c] 30 NNO[d] (all incarcerated)	Psychopathy Screening Device (PSD)	- JSO more callous and unemotional personality - no differences in impulse control
7) Kempton & Forehand (1992)	7 JSO (only) 9 JSO (plus other offense) 32 NVO 32 NNO (all incarcerated)	Teacher Report Form of the Child Behavior Checklist (CBCL)	JSO (only) lower in: - externalizing (aggressive, social/withdrawal) problems - internalizing (anxiety, inattentive) problems (no differences between JSO with child and peer/adult victims)
8) Oliver, Nagayama, & Neuhaus (1993)	50 JSO (outpatient) 50 NVO 50 NNO	Jesness Inventory (JI)	JSO lower than both groups in: - social maladjustment (socially unapproved attitudes)
9) Awad, Saunders, & Levene (1984)	24 JSO 24 NVO/NNO (referred to court clinic)	Interview	No difference in maladjustment (stealing, lying, impulsive behavior, unhappiness)
10) Zakireh, Ronis, & Knight (2008)	25 JSO (residential) 25 JSO (outpatient) 25 NVO(residential) 25 NVO (outpatient) (in treatment)	Multidimensional Assessment of Sex and Aggression (MASA)	- the only difference in *impulsivity:* JSO (residential) > JSO (outpatient) - JSO more *constant anger* than all groups - no differences in *arrogant/deceitful*
11) Kavoussi, Kaplan, & Becker (1988)	58 JSO in outpatient program for evaluation and treatment	Structured Clinical Interview for DSM-III (SCID), Children´s Schedule for Affective Disorders and Schizophrenia (Kiddie SADS-E)	- 67% conduct disorder (rapists more often than non-rapists) - 35% attention deficit disorder - 21% adjustment disorder/depressed mood

			- 12-16% marijuana or alcohol abuse - 10% social phobia - others < 10%
12) Galli et al.(1999)	22 JSO with child victims (from rehabilitation center, court, psychiatry)	Structured Clinical Interview for DSM-III-R Diagnostic Interview for Children and Adolescents (DICA-A and -P)	- 82% mood disorders - 71% ADHD - 55% anxiety disorders - 50% substance use disorders - 55% impulse-control disorder - 94% conduct disorder
13) Saunders & Awad (1991)	19 JSO (hands off) Referred by court or police		Only two boys without emotional or behavioral maladjustment: - Depression, conduct disorder, psychoses or learning disorder

[a] Only those groups of participants and instruments are given in the table that are relevant for the results illustrated here.
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[d] NNO= Non-violent, Non-sexual Offenders (juvenile)

Sexuality

For a long time, sexually aggressive behavior of minors, except for the most severe forms such as rape, has been regarded as inexperienced experimentation. Groth (1977) opposed the concept of experimentation after he had found high rates of sexual experience (86%) prior to sexual offenses by juveniles and adults. Generally, sexually aggressive minors have been described to be experienced in consensual sexuality, sometimes even more than non-offending controls (Righthand & Welch, 2001).

Sexual activity at a young age has been considered as a risk factor. The results of two studies suggest a mediating influence of early sexual activity on sexual offending/aggression in youth (Casey, Beadnell, & Lindhorst, 2009; Koss & Dinero, 1988)[1)2)] *(see Table 3 for a more detailed description of the studies)*. A small group of hardened juvenile sexual offenders had sexual experiences, except for masturbation, at a very young age (Longo, 1982)[3)]. The author did not assume an offender-specific psychosexual development, but concluded that the sexual experiences of this group might be different in nature.

Comparisons with other groups of juvenile delinquents revealed the sexual offenders to be less sexually less active and experienced (Daleiden, Kaufman, Hilliker, & O'Neil, 1998; Fagan & Wexler, 1988)[4)5)]. However, one study could not find any differences and revealed similar degrees of sexual activity between the groups (Van Wijk et al., 2005)[6)]. Likewise, in a meta-analysis of comparison studies the adolescent sex offenders could not be shown to have less sexual experiences (Seto & Lalumière, 2010). Fagan & Wexler (1988) postulated that sexual aggression in juveniles cannot be seen as a deviant way for sexual activity as a meaningful social interaction. The offense is rather an

expression of the deficit in ability to control. The young people are isolated and do not follow gender role stereotypes.

The aforementioned national study with a large number of sexually aggressive juveniles confirms this assumption to some extent: only few connected sex with love, some rather with power, and they felt sexually inadequate (Ryan et al., 1996)[7]. A comparison between three groups of juveniles sheds further light on their sexual self-perception: offenders with peer and adult victims (1) described themselves as "restricted", while offenders with just child victims (2) felt "slow" in terms of sexuality and attractiveness. The violent non-sexual offenders (3) resembled more the normal population. The author concluded that restriction of sexuality (e.g. of masturbation before the age of 14) could have resulted in repression of genital sexuality in the case of the first group, and in withdrawal to autoerotic acts of compensation for juveniles with child victims (Hummel, 2008)[8]. In accordance with these results, sexual aggression in youth has been ascribed to a negative self concept and an insufficient feeling of masculinity. Kirkendall (1952 as cited by Longo, 1982) proposed that this stems from exaggerated sorrow concerning age-appropriate themes such as sexual performance.

Even though sexual education is part of many treatment programs, there are scarce findings about sexual knowledge of juvenile sexual offenders (Epps & Fisher, 2004). One comparison study yielded no group differences (Awad et al., 1984)[9], another study reports that non-sexual violent juvenile delinquents had higher scores for sexual knowledge in the Multiphasic Sex Inventory (MSI-J) (Beckett, Gerhold, & Brown, 2002).

The little that is known about sexual orientation of juvenile sexual offenders indicates that the proportion of reported homosexuality is less than 2% (Becker, Cunningham-Rathner, & Kaplan, 1986; Ryan et al., 1996).

According to Kafka and Hennen (2003), hypersexuality ("excessive sexual drive and preoccupation or sexual appetitive behavior") is an important risk factor for sexual reoffense. Thus, current instruments measuring sexual aggression or risk for sexual aggression in youth[5] do include items or subscales related to sexual preoccupation[6]. Some of those scales of the MASA (Multidimensional Assessment of Sex and Aggression) have been found as risk indicators for the persistence of sexual offending (Knight, Ronis, & Zakireh, 2009)[10]. A recent study found the sexual drive/preoccupation scale of the J-SOAP a stronger predictor for sexual reoffending than the scale for impulsive/antisocial behavior (Powers-Sawyer & Miner, 2009).

A relationship between pornography use and sexual aggression is not consistently reported (Ybarra & Mitchell, 2005). Eight studies reviewed by the aforementioned meta-analysis yielded slightly more exposure to sex or pornography for adolescent sexual offenders compared to non-sexual offenders (Seto & Lalumière, 2010). Moreover, differences concerning hardcore pornography appeared when comparing juvenile sexual offenders with non-sexual delinquents (Ford & Linney, 1995)[11]. Also a connection between pornography use and the number of victims (children) was reported (Emerick & Dutton, 1993)[12], while no such relationship could be found in another study (Becker & Stein, 1991)[13]. The authors emphasize the difficulty of investigating causal links regarding pornography use and sexual aggression.

The role of sexual fantasies is controversial as well. In a recent study, sexually coercive and non-coercive men could be discriminated by their use of sexual fantasies (Knight, Ronis, Prentky, & Kafka 2009 as cited by Knight et al., 2009). An association between high-risk of reoffending and high levels of sexual fantasy use in juvenile sexual offenders was found (Smith et al., 2005)[14].

Daleiden et al.(1998)[15] found lower self reported levels of non-deviant fantasy use by sexual and non-sexual offending incarcerated juveniles in comparison to non-offenders. They postulate criminal behavior in juveniles to be associated with lower levels of non-deviant sexual fantasy rather than with elevated levels of deviant fantasies. Attention has to be paid to the setting/location of the assessment. Incarcerated juveniles for example might tend to show more atypical sexual behavior due to incarceration rather than to sexual preferences.

In summary, there are some indications that juvenile sexual offenders are impaired in their sexual development, but they were rarely described as sexually isolated. In the risk assessment literature, there appears to be agreement on the influence of sexual preoccupation in (juvenile) sexual offending.

Table 4: Sexuality[a]

Studies	Participants	Instruments	Results
1) Casey, Beadnell, & Lindhorst (2009)	5,649 non-offenders	"Questionnaire"	Longitudinal investigation: - *young age at first sex* mediates the pathway from *child sexual abuse* to subsequent *sexually coercive behavior*
2) Koss & Dinero (1988)	(n=2972) college students	Questionnaire, Hostility Toward Women Scale, MMPI Psychopathic Deviate Scale, Rape Supportive Belief	degree of sexual aggression associated with: - early sexual activity - childhood sexual experience - alcohol use, use of derogative pornography, peers with sexualized views about women
3) Longo (1982)	17 JSO[b] (referred to adult court)	"Questionnaire"	- first sexual experience: 9years (m), 76% before the age of 12 (partner 8years (m) older) - first sexual intercourse: 12years (m) - first contact with sexually explicit material: 9,5years (m) - first masturbation: 12years (m)

4) Daleiden, Kaufman, Hilliker, & O'Neil (1998)	104 JSO age10-15 198 JSO age16-20 124 NVO/NNO (all incarcerated) 135 non-offenders	Sexual History Form (SHF), Sexual Fantasy Questionnaire (SFQ)	- Both JSO less experienced in typical sexuality than the other groups - JSO more non-consensual sexual behavior - JSO and NVO/NNO more atypical and voyeuristic activity, more solitary sexual activity, fewer non-deviant sexual fantasies than non-offenders
5) Fagan & Wexler (1988)	34 JSO 208 NVO (retrieved from court)	“Interviews”	JSO sexually more isolated, less often girlfriends, less sexual activity, interest or experience.
6) Van Wijk et al.(2005)	39 JSO (hands-on) 430 NVO[c]	Sexual activity scale	- No differences in sexual intercourse, number of female partners, age of first intercourse
7) Ryan, Miyoshi, Metzner, Krugman, & Fryer (1996)	774 JSO referred for evaluation or treatment	Uniform Data Collection System (UDCS), *Different evaluation and treatment institutions contributed data, they used different instruments*	- 1/3 connected sex with love, 24% used sex to demonstrate power and control, 9% to reduce anger and 8% to harm or to punish - 58% felt sexually normal, 15% sexually mature, 25% inadequate or different from others - 44% reported age appropriate relationships
8) Hummel (2008)	107 Juveniles (JSO peer/adult victims, JSO child victims, NVO)	“Interviews”	- JSO (peer/adult victims) felt restricted in conditions for sexual socialization at home and attractiveness.

			- JSO (child victims) felt slow in sexual development, attractiveness, and sexual experience - NVOs felt less restricted and controlled their own sexuality less
9) Awad, Saunders, & Levene (1984)	24 JSO 24 NVO/NNO (referred to court clinic)	“Interview”	Most age appropriate understanding of sexuality, some almost no sexual knowledge
10) Knight, Ronis, & Zakireh (2009)	228 JSO(residential programs) 147 aSO[d], onset in youth 140 aSO, onset in adulthood (both incarcerated)	Multidimensional Assessment of Sex and Aggression (MASA)	Group differences : - *sexual preoccupation* - *sexual drive* - *scales for pornography exposure*
11) Ford & Linney (1995)	14 JSO (adult/peer victims) 21 JSO (child victims) 26 NVO 21 NNO[e]	“Structured interview”	- JSO higher rates of exposure to hardcore pornography (42% vs.29%) - JSO exposure to pornographic magazines at a younger age (5-8 years) - NVO younger at exposure to hard core movies
12) Emerick & Dutton (1993)	76 JSO (judged as at high risk to reoffend in clinical assessment)	confirmation polygraph testing, “clinical interview”	- 56% have seen hardcore pornography, 77% used pornography for stimulation - extent of pornography use while masturbating relates to number of female child victims (no relationship to e.g. intercourse, deviant sexuality, victimization)

13) Becker & Stein(1991)	160 JSO	“Structured clinical interview“	- no relation between pornography use and number of victims - 74% aroused by pornography, 11% no pornography use
14) Smith, Wampler, Jones, & Reifman (2005)	161 alleged JSO Divided into risk groups according to static criteria: low-risk: n = 46 medium-risk: n = 48 high-risk: n = 67	Wilson Sexual Fantasy Questionnaire (WSFQ)	- JSO (high-risk) same levels of sexual fantasy like the norming group of the test (adults), JSO (low-risk) lower levels (intimate and sadomasochistic fantasies)

[a] Only those groups of participants and instruments are given in the table that are relevant for the results illustrated here.
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[d] aSO=Adult Sexual Offenders
[e] NNO= Non-violent, Non-sexual Offenders (juvenile)

Sexual Deviance

There are critical problems in objectively measuring sexual deviance/paraphilia in juveniles. Firstly, there is some reservation about investigating the sexuality of young people in general and special caution is demanded by doing this (Barbaree & Marshall, 2006). Secondly, juveniles may not talk freely about sexual fantasies and activities during reports (Awad et al., 1984; Aylwin, Reddon, & Burke, 2005). Thirdly, the process of developing a standardized operationalization for juvenile sexual deviance is still ongoing (Worling & Langström, 2006). Moreover, sexual arousal in youth is more difficult to differentiate than in adults and underlies changes according to the sexual and general development of the juvenile (Andrade et al., 2006; Awad & Saunders, 1991).

A wide range of sexual behaviors in childhood and adolescence is considered normal. Approaches to establish a border between normal and deviant sexuality and maladaptive psychosexual development, respectively, usually do not name certain types of sexual behavior. They have rather focused on the motivation for and the preoccupation with the behavior as well as the use of force and coercion (Araji, 2004).

Retrospective studies with adult sexual offenders suggest an early onset of sexual maladjustment (Longo & Groth, 1983)[1)], of deviant sexual fantasies (Marshall, Barbaree, & Eccles, 1991)[2)], and of paraphilias (42% before age of 18, n=1,025) (Abel, Osborn, & Twigg 1993 as cited by Andrade et al., 2006) *(see Table 4 for a more detailed description of the studies)*.

Moreover, the deviant fantasies of adults have been reported to resemble later committed sexual

crimes by type (Abel et al. 1987 as cited by Marshall et al., 1991). With regard to sexual fantasies in their youth, adult sex offenders reported higher levels of fantasies with sadomasochistic themes in comparison to violent non-sexual offenders, but the overall level of sexual fantasies was the same (Cortoni & Marshall, 2001)[3]. The findings of Langevin, Lang, & Curnoe (1998)[4] point in the same direction. Levels of deviant fantasies were higher for sexual offenders, but levels of non-deviant fantasies were high for all groups. They explained that the sexual offenders might have tried to block out unacceptable fantasies by enhancing non-deviant fantasies and they questioned the usefulness of assessing deviant fantasy in the diagnosis of paraphilias (except for pedophilia).

To clarify the role of deviant sexual fantasy, it is important to differentiate whether the fantasies were present before, during or after the sexual offense. The first sexual crime hereby is of special relevance. Adult offenders have reported that masturbatory deviant sexual fantasies increasingly occurred after the first sexual offense (Dandescu & Wolfe, 2003)[5]. Therefore, deviant fantasy might not only be meaningful in the etiology of deviant behavior but also in its continued maintenance.

Attempts to investigate the role of deviant sexual fantasies in juvenile sexual offending have shown that a considerable proportion of juveniles reported having such fantasies (Ryan et al., 1996)[6]. Furthermore, a connection between misogynistic fantasies and the use of violence during sexual offending was described (Johnson & Knight, 2000)[7]. A third study found hostility toward women as a predictor for attraction to sexual aggression (Calhoun et al., 1997)[8]. These authors argued that according to the socio-psychological theory, aggressive attitudes predict aggressive behavior the best; they are even more related to future behavior than to behavior in the past. However, a comparison between juvenile sexual offenders and non-sexual delinquents revealed no differences in sexist beliefs between the groups (Caputo et al., 1999)[9].

As already mentioned, levels of sexual deviance/paraphilia are difficult to measure in young people. Even though slight sexual deviance was reported for one group of juvenile sexual offenders, it did not reach a clinical level (Awad & Saunders, 1991)[10]. Another study described high rates of paraphilia for a group of juvenile sexual offenders (Galli et al., 1999)[11], but biases due to sample selection are very likely.

Higher levels of paraphilia have been described for juvenile sexual offenders in residential treatment in comparison to non-sexual offenders and sexual offenders in outpatient treatment (Zakireh et al., 2008)[12]. Measuring sexually deviant arousal in juveniles with phallometric devices (measurement of changes in penile circumference) is a method that has been criticized in this context. Attempts only revealed an association between deviant sexual arousal and gender of victim (Hunter, Goodwin, & Becker, 1994)[12], and between sexual arousal and victimization experiences (Becker, Kaplan, & Tenke, 1992)[13]. Further, a relationship between victimization experiences and sexual arousal depending on the gender of victim has been found (Becker, Hunter, Stein, & Kaplan, 1989)[15].

Several studies give hints that deviant sexual behavior and fantasies decrease during therapy (e.g. satiation therapy), while non-deviant reactions and fantasies increase (Aylwin et al., 2005; Hunter & Goodwin, 1992; Weinrott, Riggan, & Frothingham, 1997). However, Hunter & Goodwin (1992) argued that only highly psychosexually distorted juveniles profit from satiation therapy.

According to Knight et al. (2009), the role of deviant sexual interests for the continuity of offending behavior into adulthood is contended. Juvenile sexual offenders scored higher on paraphilia and sexual coercion than the adults in one study (Knight & Sims-Knight, 2004)[16]. In another study, the factor paraphilias showed to have potential as a risk factor for juvenile sexual offending to continue into adulthood (Knight et al., 2009)[17]. In yet another study with serious juvenile sexual offenders paraphilia diagnosis was associated with decreased risk for reoffending (Miner, 2002).

A review of comparison studies describes no differences between juvenile sexual offenders and non-sexual delinquents regarding sexual and physical aggression in three studies. In one study, higher levels of aggression (sexual and physical) in sexual offenders were found, but only if compared with mildly, not with severely violent non-sexual offenders. Two studies described juvenile sexual offenders as emotionally more distorted (deviant sexual fantasies, less experience with consensual sex, experience with pornography), while another study described no differences in atypical sexuality (Van Wijk et al., 2006). In contrast, the largest group difference between adolescent sexual offenders and non-sexual offenders in the recent meta-analysis was found for atypical sexual interests (fantasies, behaviors, interests, paraphilia diagnosis) (Seto & Lalumière, 2010).

Altogether, sexual deviance has, with limitations, been described as an empirically supported risk factor (Worling & Langström, 2006). Difficulties in measurement, particularly regarding juveniles with child victims, may have contributed to the fact that high and consistent rates of paraphilia have rarely been reported.

Table 5: Sexual Deviance[a]

Studies	Participants	Instruments	Results
1) Longo & Groth (1983)	231 aSO[b]	"Interview"	- 32% compulsive masturbation in youth - 24% exhibitionism, 26% voyeurism
2) Marshall, Barbaree, & Eccles (1991)	129 aSO (child victims)	"Interview", penile plethysmography	- 30% onset of deviant fantasies (including children) prior to the age of 20 (out of 53% who reported deviant fantasies) - 36% first offense before age of twenty - 22% deviant fantasies prior to first offense
3) Cortoni & Marshall (2001)	29 ASO (adult victims) 30 ASO (child victims) 30 aNVO[c] (all incarcerated)	Wilson Sexual Fantasy Questionnaire (WSFQ)	- Both aSO groups more sadomasochistic sexual fantasies *in youth* (No differences in exploratory, intimacy or impersonal sexual fantasy)
4) Langevin, Lang, & Curnoe (1998)	129 aSO 50 NVO 22 Non-offenders	Clarke Sex History Questionnaire (SHQ)	- aSO more deviant sexual fantasies (33%) - no differences in non-deviant fantasies with females
5) Dandescu & Wolfe (2003)	57 aSO (child victims) 25 aSO (exhibitionism) (in treatment)	"Questionnaire"	More aSOS of both groups reported higher levels of masturbatory deviant fantasy after first sexual offense. (65% vs.81%) (child victims)

			(76% vs.88%) (exhibitionism)
6) Ryan, Miyoshi, Metzner, Krugman, & Fryer (1996)	774 JSO[d] referred for evaluation or treatment	Uniform Data Collection System (UDCS)	- 45% masturbate during sexual fantasies - 33% (out of those) during deviant sexual fantasies
7) Johnson & Knight (2000)	122 JSO (inpatient treatment)	Multidimensional Assessment of Sex and Aggression (MASA)	*misogynistic fantasies* (directly), *hyper masculinity and sexual compulsivity* (indirectly) discriminated JSO with violence (incl. verbal) use during offense from non-violent JSO
8) Calhoun, Bernat, Clum, & Frame (1997)	65 non-offenders (mean age~20y)	Attraction to Sexual Aggression (ASA), Hostility toward women (HTW) Sexual Experience Survey (SES), Youth Self Report (YSR)	- *Hostility toward women* strong predictor for *attraction to sexual aggression* - boys with *attraction to sexual aggression* similar profiles like sexually coercive boys (in *alcohol consumption on dates, hostility, delinquency*)
9) Caputo, Frick, & Brodsky (1999)	23 JSO (hands-on) 17 NVO[e] 30 NNO[f] (all incarcerated)	Sexist Attitudes Toward Women Scale (SATWS)	No group differences in sexist attitudes
10) Awad & Saunders (1991)	49 JSO (peer/adult victims, hands-on) (referred to court clinic)	“Interviews”	- 27% signs for paraphilia, none met full criteria - 23% sexual deviance among siblings - no homosexual conflicts
11) Galli et al.(1999)	22 JSO with child victims (from rehabilitation center, court, psychiatry)	Structured Clinical Interview for DSM-III-R	- 100% Pedophilia (except for age criteria), 86%Frotteurism, 50% Voyeurism, 41% Exhibitionism - 64% Paraphilia NOS 95% ≥ 2 paraphilias, 64% ≥ 3, 14% =7
12) Zakireh, Ronis, & Knight (2008)	25 JSO (residential) 25 JSO (outpatient) 25 NVO (residential) 25 NVO (outpatient) (in treatment)	Multidimensional Assessment of Sex and Aggression (MASA)	- JSO (residential) higher on all paraphilia scales (atypical, exhibitionism, transvestism, voyeurism) - JSO (oupatient) and NVO (residential) higher than NVO (outpatient)

13) Hunter, Goodwin, & Becker (1994)	44 JSO (outpatient and residential)	Penile plethysmography	JSO with male victims (only) had higher deviance quotients after deviant auditory stimuli (for this subgroup about molestation of younger males) than minors with female victims.
14) Becker, Kaplan, & Tenke (1992)	83 JSO	Penile plethysmography	JSO with a history of victimization (sexual and physical) reacted with a higher probability to both, deviant and non-deviant sexual stimuli.
15) Becker, Hunter, Stein, & Kaplan (1989)	86 JSO (child victim)	Penile plethysmography	JSO with male victims scored higher and JSO with female victims scored lower on the pedophile-scale with victimization experience than without.
16) Knight & Sims-Knight (2004)	218 JSO (inpatient treatment) 275 ASO (incarcerated)	Multidimensional Assessment of Sex and Aggression (MASA)	- JSO higher than adults in *exhibitionism, transvestitism, voyeurism,* and *atypical paraphilia* - JSO lower than adults in *sexual compulsivity*
17) Knight, Ronis, & Zakireh (2009)	228 JSO (residential programs) 147 adult SO, onset in youth 140 adult SO, onset in adulthood (both incarcerated)	Multidimensional Assessment of Sex and Aggression (MASA)	The pattern of group-differences in *sexual compulsivity, atypical paraphilias, exhibitionism,* and *voyeurism* suggests that they are potential risk factors for continuity of sexual offending.

[a] Only those groups of participants and instruments are given in the table that are relevant for the results illustrated here.
[b] aSO=Adult Sexual Offenders
[c] aNVO= Adult Non-sexual Violent Offenders
[d] JSO= Juvenile Sexual Offenders
[e] VNO=Violent, Non-sexual Offenders (juvenile)
[f] NNO= Non-violent, Non-sexual Offenders (juvenile)

Victimization Experiences

The role of a victimization history has been discussed and investigated in a variety of ways. Reports about the prevalence of sexual victimization among juvenile sexual offenders vary from 4% - 60% (Epps & Fisher, 2004) to 50% - 80%, and sometimes even up to 100% (in samples with prepubescent boys) (Hunter & Becker, 1994). Violent victimization is reported to occur in 20% to

25% (Righthand & Welch, 2001) or 40% to 83% (Epps & Fisher, 2004) and sometimes less for juveniles with child victims (Epps & Fisher, 2004). Physical and sexual victimization are often found in comparable rates such as 13% of violent and 17% of sexual victimization (Saunders & Awad, 1991) or 16% physical and 18% sexual victimization (Becker et al., 1986) or 42% of violent and 39% of sexual victimization (Ryan et al., 1996). Self-reported sexual victimization does not only depend on the sample but also on the setting of the investigation. Higher rates have been reported after therapy than before (31% vs. 52%) (Worling & Langstrom, 2003). The report-rates also depend on the definition used for sexual abuse. Spaccarelli et al. (1997) postulated that the definition criteria such as coercion or physical violence do not hold for boys who have been abused by females.

According to Epps et al (2004), highest rates of sexual abuse have been reported for juvenile child molesters, especially for those with male victims, and lowest for juvenile rapists. Moreover, juvenile sexual offenders who experienced sexual victimization have been reported to have more victims, to have more male victims, to start offending at a younger age (Becker & Stein, 1991; Cooper, Murphy, & Haynes, 1996)[1)2)] and to commit more severe (Smith, 1988)[3)] and more violent offenses (Johnson & Knight, 2000)[4)] than juvenile sexual offenders without victimization experiences *(see Table 5 for a more detailed description of the studies)*.

When compared to non-sexual delinquents, the victimization experiences of juvenile sexual offenders were reported to be more forceful, longer and more often committed by male perpetrators and by relatives (Burton, Miller, & Shill, 2002)*5)*.

The authors interpret these results as a confirmation of the social learning theory: "The more often and the longer the children attended their model´s behavior, the higher their level of observational learning" (Bandura 1986 as cited by Burton et al., 2002). The factors that have influence on the victim-victimizer-line have been described: *Victim-offender relationship* (the closer the more functional as a model), *gender/sex* (male perpetrator> possibly more use of violence, results in more shame and in reinforced learning), *modus operandi of offense* (more violence means more attention which enhances learning and abasement and results in a stronger need for control) (Garland & Daugher1990 as cited by Burton et al., 2002). Consistently, there also appears to be a connection between the nature of the experienced victimization and the later committed offense (Burton, 2003)[6)]. Moreover, findings indicate that juveniles who continue sexual offending throughout youth (Burton, 2000)[7)] and into adulthood have higher levels of sexual victimization experience (Knight & Prentky, 1993)[8)]. Theories of how the "victim-to-offender cycle" comes about include mechanisms such as reinforcement, social learning, model-learning, recovery of power, and conditioning by fantasy use during masturbation (Epps & Fisher, 2004).

Comparison studies, however, yield inconsistent results. Some studies deliver data for higher rates of sexual and physical abuse among juvenile sexual offenders than among non-sexual juvenile delinquents (Bagley, 1992; Caputo et al., 1999; Zakireh et al., 2008)[9)10)11)]. Others report higher rates of sexual and/or violent victimization among other groups of non-sexual delinquents than among juvenile sex offenders (Hummel, 2008)[12)] or that no differences exist between the groups (Benoit & Kennedy, 1992; Fagan & Wexler, 1988; Ronis & Borduin, 2007)[13)14)15)]. However, almost all of 31 studies investigated reported more frequent sexual abuse and the majority of 20 studies reported a higher prevalence for violent abuse among non-sexual offenders than among adolescent sexual offenders. An effect for age of the victim was reported as well with a larger group difference in sexual abuse for studies with a high proportion of juveniles with child victims (Seto & Lalumière, 2010). Yet it has been concluded that, after all, the experience of victimization is a risk factor for delinquency but not specifically for sexual delinquency (Ronis & Borduin, 2007). Worling & Langström would not assume victimization to be a risk factor for reoffending (2006).Violent experiences, on the other hand, have been reported to be probably particularly related to violent

delinquency (Righthand & Welch, 2001; Spaccarelli et al., 1997).

The summarized results show that the experience of sexual victimization does have an influence on offense and offender type. But also other forms of abuse or maltreatment in childhood (e.g. neglect) play an important role (Zakireh et al., 2008). And moreover, there are several other factors (e.g. dysfunctional families, parents with psychiatric disorders) that co-vary with sexual abuse (Benoit & Kennedy, 1992). Finally, victimization cannot hold as an explanation for sexual offenses in adolescence alone because by far "not all juvenile sexual offenders have a history of sexual abuse, and not all sexually abused children become offenders (Van Wijk et al., 2006)".

Table 6: Victimization Experiences[a]

Studies	Participants	Instruments	Results
1) Becker & Stein, (1991)	160 JSO	“Structured clinical interview“	JSO with victimization experiences (sexual and physical) more victims and more likely male victims
2) Cooper, Murphy, & Haynes (1996)	300 JSO (clinical treatment program)	Self-Reported Delinquent Behavior Checklist (SRDBC)	JSO with sexual victimization experiences: -earlier offending onset, more victims, more likely male victims
3) Smith (1988)	450 JSO[b]	Juvenile Sexual Offender Program (JSOP)	JSO who experiences or witnessed victimization (physical and sexual) committed more serious offenses
4) Johnson & Knight (2000)	122 JSO (inpatient treatment)	Multidimensional Assessment of Sex and Aggression (MASA)	Experiences of sexual and physical victimization discriminated JSO with violence (incl. verbal) use during offense from non-violent JSO
5) Burton, Miller, & Shill (2002)	216 JSO 93 NNO[c]/NVO[d] (treatment facilities, all sexually victimized)	SexualAbuse Exposure Questionnaire (SAEQ)	JSO experienced longer and more forceful abuse including penetration, were more likely to have had a male and a known perpetrator - strongest predictor: male and female perpetrators, forcefulness
6) Burton (2003)	179 JSO (residential treatment, all sexually victimized)	Sexual Abuse Exposure Questionnaire (SAEQ) (modified)	JSO committed sexual offenses similar to own experiences in terms of relationship, severity, gender, and modus operandi
7) Burton (2000)	65 JSO (offense before age of 12 and after)	Self Report Sexual Aggression Scale (SERSAS) , The	- JSO (offense before age of 12 and after) most experiences of sexual abuse, JSO (after age

	48 JSO (only before age12) 130 JSO (onset after age 12)	Childhood Trauma Questionnaire (CTQ), SAEQ modified	12) least
8) (Knight & Prentky, 1993)	61 aSO[e] onset youth 216 aSO onset adulthood (both adult victims) 55 aSO 148 aSO (both child victims)	“Interviews”	aSO (onset youth, child victims) had experienced more sexual abuse in childhood than aSO (onset adulthood, child victims) - aSO (adult victims) no differences
9) Bagley (1992)	60 JSO 322 juveniles (both in residential treatment)	file review protocol	JSO more likely to have experienced physical or sexual victimization
10) Caputo, Frick, & Brodsky (1999)	23 JSO (hands-on) 17 NVO 30 NNO (all incarcerated)	Conflicts Tactics Scales, Form R (CTS)	JSO experienced more domestic violence than NNO
11) Zakireh, Ronis, & Knight (2008)	25 JSO (residential) 25 JSO (outpatient) 25 NVO(residential) 25 NVO(outpatient) (in treatment)	Adolescent Clinical Inventory (MACI)	- 25 JSO (residential) higher than all other groups on sexual/physical/psychological victimization. - 25 JSO (outpatient) higher on sexual abuse than were NVO
12) Hummel (2008)	107 Juveniles (JSO peer/adult victims, JSO child victims, NVO)	“Interviews”	NVO experienced more sexual victimization than JSO groups
13) Benoit & Kennedy (1992)	25/25 JSO (female/both sexes child victims) 25/25NVO/NNO (training school)	Master records	No differences in experiences of physical or sexual victimization
14) Fagan & Wexler (1988)	34 JSO 208 NVO (retrieved from court)	“Interviews”	Comparable rates of victimization experiences
15) Ronis & Borduin (2007)	23/23JSO (peer-adult/child victims) 23/23 NVO/NNO (all groups at least one arrest) 23 non-offenders	“Interviews”	All delinquent groups experienced more sexual and violent victimization than non-delinquents, no intergroup differences
16) Knight & Sims-Knight	218 JSO (inpatient treatment)	Multidimensional Assessment of Sex and	JSO experienced more sexual but not more violent

(2004)	275 aSO (incarcerated)	Aggression (MASA)	victimization than aSO

[a] Only those groups of participants and instruments are given in the table that are relevant for the results illustrated here.
[b] JSO= Juvenile Sexual Offenders
[c] NNO= Non-violent, Non-sexual Offenders (juvenile)
[d] VNO=Violent, Non-sexual Offenders (juvenile)
[e] aSO=Adult Sexual Offenders

Conclusion

First of all, this review demonstrates that studies about the characteristics of juvenile sexual offenders should not be interpreted without taking into account to the following important study factors: The setting of investigation (e.g. clinical), the nature of the study group (e.g. child victims), the type of comparison groups (e.g. violent offenders), and the time of investigation (e.g. after therapy).

Not surprisingly, studies that reported about juveniles in outpatient treatment presented a healthier, less impaired picture than studies about juveniles in clinics or prisons. For example, higher rates of maladjustment and psychopathology were found in studies with incarcerated juveniles or juveniles in residential treatment, whereas the studies with court samples or based on teacher ratings reported lower rates of problematic traits of juveniles. Moreover, one study demonstrated that inpatient juvenile sexual offenders showed higher impulsivity. Likewise, differences in reports of former delinquent behavior in juvenile sexual offenders reflected a similar constellation: low rates were found in a study that investigated juveniles referred to a community evaluation program, while high rates of up to 94% were found in a group of juveniles with at least one arrest. Regarding paraphilia, one study demonstrated that juveniles in residential treatment have higher levels of paraphilia than sexual offenders in outpatient treatment and than non-sexual offenders. The only study included in this review showing high levels of paraphilia investigated only a small clinical group of juvenile sexual offenders. Another trend shown in this review is that higher incidences of childhood abuse experiences of juvenile sexual offenders are reported for juveniles in inpatient programs. Only those studies which investigated juveniles in non-therapeutic settings showed no differences or even higher abuse rates in these juveniles compared to non-sexual offenders.

The nature of the study group seems to be meaningful in several ways: only the study with an exclusively hands-on offender sample yielded no differences concerning alcohol and drug use between juvenile sexual and non-sexual offenders. Compared to other severely disturbed youths with or without offense histories, juvenile sexual offenders revealed even more substance abuse problems. Also for early sexual experiences, there were no differences reported when only hands-on offenders were compared to other juvenile delinquents, while a study with juveniles with mixed offense types reported lower levels. Likewise, in a group of high-risk offenders but not in another study with a mixed sample, a positive relationship between pornography use and the number of their victims could be shown. The necessity of differentiating between juveniles with child victims and those with peer/adult victims when investigating levels of victimization experiences is well-known in general.

The type of comparison group should be taken into account as well. For example, two studies that reported no differences in impulsivity included also non-violent juvenile delinquents. In addition, the time of investigation can have an influence on the study outcomes. Victimization experiences are

reported more frequently after a treatment program than before.

Although the review demonstrated the diversity of the characteristics of juvenile sexual offenders, the interpretation of all the results is limited due to the lack of comparison data regarding non-delinquent juveniles. For example, hostility toward women might be connected to sexual aggression as we learn from one study, but no differences in this association could be shown in non-sexual violent and non-violent delinquents. In fact, as long as there is no comparison research with the normal population" given, the specificity of certain characteristics of young sexual offenders cannot be verified. Much of the demonstrated heterogeneity in the study results cannot be explained sufficiently. But taking into consideration the factors introduced herein, might help to increase the generalizability of findings about juvenile sexual offenders.

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Footnotes

[1] The term 'sexual offender' in this study is used to simplify matters and not to stress the possible criminal aspects of the underlying behavior. In fact, the widely-used term 'juvenile sexual offender' only refers to a legal category and in many studies does not clarify the legal status.

[2] The sex is not given. If females were included, the proportion was very small (5%).

[3] Current databases (e.g. MedLine, PsycINFO, Psyndex) have been searched for several keywords (juvenile sex offender, adolescent sex offender, comparison AND juvenile/adolescent sex offender, sexuality AND juvenile/adolescent sex offender). The articles of interest have again been searched for further topic related resources.

[4] Some studies are named more than one time because they report about group differences for some measures of emotional problems and aggressiveness and not for others.

[5] e.g.J-SOAP-II (Juvenile Sex Offender Assessment Protocol-II) (Prentky & Righthand, 2003), ERASOR (Estimate of Risk of Adolescent Sexual Offense Recidivism) (James R. Worling, 2004), and MASA (Multidimensional Assessment of Sex and Aggression) (Raymond A. Knight, Prentky, & Cerce, 1994)

[6] Sexual Drive and Preoccupation (J-SOAP-II), Obsessive sexual interests/Preoccupation with sexual thoughts (ERASOR), and Sexual Preoccupation, Sexual Compulsivity, Sexual Drive (MASA)

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