Chapter 7

The general aim of the current dissertation was to improve our understanding of sexual offending behavior in juveniles on the one hand and the relationship between traumatic experiences and mental health problems on the other hand. This chapter presents an overview of the results of the studies presented in the previous chapters. Furthermore, we will discuss these results including the strengths and weaknesses, clinical implications, and directions for future research.

SUMMARY OF KEY FINDINGS

In chapter two, we established the prevalence of mental disorders in juveniles who sexually offended (JSOs). A meta-analysis was performed based on studies reporting on the prevalence rates of mental disorders in these juvenile offenders. In addition, differences in mental disorders between JSOs and non-JSOs were assessed. In total, 21 studies reporting on mental disorders in 2,951 JSOs and 18,688 non-JSOs were included; 69% of JSOs met the criteria for at least one mental disorder, and comorbidity was present in 44% of JSOs. Externalizing disorders were highly prevalent in JSOs, followed by Substance Use Disorders (SUDs) and internalizing disorders. Compared to non-JSOs, JSOs were less often diagnosed with Disruptive Behavior Disorder (DBD, i.e., CD and/or Oppositional Deviant Disorder [ODD]), Attention-Deficit/Hyperactivity Disorder (ADHD) and SUD. For internalizing disorders, no significant differences were found.

The aim of chapter three was to examine the prevalence of mental disorders in (subgroups of) Dutch juvenile suspects of a sex offense (i.e., child molesters, and solo sex offenders and group sex offenders against peers/adults). In addition, we investigated the relationship with criminal recidivism five to eight years later. Three quarters of the JSOs met criteria for at least one mental disorder and comorbidity was found in more than half of the subjects. As compared to sex offenders with peer and/or adult victims, child molesters showed higher rates of affective disorders and had a lower overall level of functioning. JSOs who sexually reoffended were more often diagnosed with an affective disorder, had more often a history of sexual abuse, and had a lower level of global functioning than JSOs who did not reoffend sexually.

In chapter four, the relationship between sexually aggressive behavior and psychopathy was studied. We examined the prevalence of self-reported psychopathic traits in subgroups of Dutch juvenile suspects of a sex offense (i.e., child molesters, and solo sex offenders and group sex offenders against peers/adults). In addition, we compared JSOs to detained non-JSOs and to general population youths. Results showed that both sexually and generally offending juveniles had significantly lower levels of self-reported psychopathic traits than youths from the general population. JSOs and generally offending juveniles did not differ in self-reported psychopathic traits. Furthermore, no differences in psychopathic traits were found between subgroups of JSOs. However, the finding that self-reported psychopathic
traits are less prevalent in offending juveniles than in general population youths raises questions about the usefulness of the YPI when comparing psychopathic traits between clinical samples and general population samples.

In chapter five we examined differences in mental health problems between JSOs and non-JSOs, controlled for demographic characteristics and judicial status in a US sample. In addition, JSOs subdivided by age, race, type of facility, and adjudication status, were examined for mental health problems. Results showed that JSOs reported fewer angry-irritable problems and substance abuse problems than non-JSOs. As for the relation with demographic characteristics and judicial status, it was found that (a) older JSOs had more alcohol and drug use problems than younger JSOs, (b) Caucasian JSOs had more angry-irritable problems and suicide ideation problems than non-Caucasian JSOs, (c) detained JSOs had more alcohol and drug use problems, and somatic complaints than JSOs in probation, and (d) post-adjudicated JSOs had more alcohol and drug use problems and angry-irritable problems than pre-adjudicated JSOs. Only the effect sizes for somatic complaints between Caucasian and non-Caucasian JSOs and alcohol and drug use problems between pre-adjudicated and post-adjudicated JSOs were medium. All other effect sizes were small.

Finally, in chapter six we examined the relationship between a history of childhood abuse and mental health problems in JSOs compared to non-JSOs. All of them had been incarcerated in two juvenile detention centers in the Netherlands. The relationship between sexual abuse, suicide ideation, and thought disturbances was significantly stronger in JSOs than in non-JSOs. Furthermore, in JSOs, sexual abuse was also related to angry-irritable problems, and physical neglect to suicide ideation. However, these relationships did not significantly differ from non-JSOs.

OVERALL DISCUSSION

In summary, the most important findings are (a) the low rates of sexual re-offending behavior in JSOs and the high rates of general re-offending behavior, (b) the lower rates of externalizing problem behavior and substance abuse problems in JSOs compared to non-JSOs, and similar levels of psychopathic traits in both groups, and (c) the specific relationship between childhood sexual abuse, internalizing mental health problems and sexual offending behavior, in particular in child molesters.

In line with previous studies (e.g., Caldwell, 2010; Fortune & Lambie, 2006), we found low sexual re-offense rates (7%), but high rates of non-sexual recidivism (80%). The low rates of sexual reoffending in JSOs raises the question whether it is justified to label these juveniles as sex offenders, especially with regard to the introduction of sex offender registration and notification acts for juveniles in various countries. Although research on the consequences of sex offender registration in juveniles is scarce, it is suggested that such interventions might stigmatize and isolate these vulnerable juveniles (Caldwell, Ziemke, &
Vitacco, 2008; Garfinkle, 2003). This is likely to limit their normal development. In addition, although it is assumed that sex offender registration in JSOs might reduce the recidivism rate, research has not been able to substantiate this assumption (Caldwell & Dickinson, 2009). Therefore, in order not to stigmatize these juveniles, we suggest to refer to these offenders as juveniles who sexually offend and not as juvenile sex offenders.

Furthermore, the high rates of non-sexual reoffending might indicate that most JSOs are actually juvenile offenders who display sexual deviant behavior. This might explain the few significant differences between JSOs and non-JSOS. Moreover, longitudinal research following individuals from infancy through adolescence into (young) adulthood demonstrated that juveniles with five of more police contacts had a greater risk of sexual offending behavior in (young) adulthood than juveniles with less than five police contacts (Zimring, Jennings, Piquero, & Hays, 2009). The presence of a sex offense in adolescence did not increase the likelihood for later sexual offending over and above the number of police contacts. Hence, treatment of JSOs should rather focus on general offending behavior than on sexual offending behavior in specific.

Although the number of JSOs that persist in sexual offending behavior is limited, this group should be recognized accurately, as previous research in adult sex offenders indicated that approximately one in three offenders started their sexual offending behavior in adolescence (Longo & Groth, 1983). Although the number of sexual reoffending JSOs is limited, these juveniles were more often diagnosed with an affective disorder and had more often been sexually abused than JSOs who did not reoffend sexually. This is in line with research in adult sex offenders showing that deterioration of negative mood was a risk factor for sexual reoffending (Hanson & Harris, 2000). In juvenile offenders in general, however, the prevalence of a major depressive disorder was found to be a protective factor for general reoffending (Vermeiren, Schwab-Stone, Ruchkin, De Clippele, & Deboutte, 2002). Our results demonstrate that JSOs with childhood sexual abuse and affective disorders are in need of intervention. However, as the link between childhood sexual abuse, affective disorders and sexual reoffending has been found at group level, it still needs to be examined to what extent intervention on the individual level will have an impact on sexual recidivism.

Although levels of mental health problems in JSOs are substantial, they are lower than in non-JSOS. In line with previous research, JSOs showed lower levels of externalizing problems and substance abuse problems than non-JSOS (Seto & Lalumière, 2010; Van Wijk et al., 2006). This may indicate that JSOs have less often committed their offenses in the context of an antisocial lifestyle than non-JSOS. Despite the lower levels of externalizing problems, no differences in levels of psychopathic traits between both groups were found. Strikingly, levels in juvenile offenders were lower than in general population youths. As juvenile offenders compare their behaviors to the behaviors of delinquent peers, they might report lower scores of antisocial trait than non-offending juveniles.

Surprisingly, we were unable to find differences in internalizing mental health problems between JSOs and non-JSOS. This might be explained by an overrepresentation of JSOs with antisocial traits and an underrepresentation of child molesters. This assumption is supported
by our findings that showed that the prevalence of affective disorders was significantly higher in child molesters than in JSOs who offended against peers and/or adults (in line with previous suggestions of Van Wijk and colleagues [2006]). These results are in line with theories that suggest that affective dysregulation might play a role in child molestation (Ward, & Siegert, 2002; Hall, & Hirschman, 1992). The co-occurrence of internalizing problems and sexual offending behavior, especially in child molesters, may have several explanations. On the one hand, in juvenile offender populations in general it is assumed that internalizing problems could be a response to the offenses and its consequences and should not necessarily have preceded the offense (Vermeiren, 2003; Teplin, Abram, McClelland, Dulcan, & Mericle, 2002). If feelings of depression or anxiety have arisen as a result of the sexual offense and/or the police and justice intervention, these conditions may well be a reaction to a shameful, or even threatening, situation. This can be expected to some extent given the aversion from society towards JSOs, and JSOs with child victims in particular. On the other hand, internalizing disorders may be the result of previously existing problems with sexuality and/or a consequence of sexual abuse. Child molesters, for example, frequently reported a history of own sexual victimization, which may have led to internalizing problems.

It is relevant for treatment purposes to find out whether these internalizing conditions were present before or developed as a consequence of the offense. The relationship between internalizing mental health problems and sexual offending behavior should preferably be examined longitudinally. However, this seems difficult due to the limited number of JSOs in the general population (only 1.6% in boys; Zimring et al., 2009). Many thousands of individuals have to be examined and followed-up from birth, throughout childhood and adolescence, to adulthood, in order to reach a substantial number of JSOs. Alternatively, qualitative retrospective research on the historical background of JSOs, focusing on their abuse history, the prevalence of (internalizing) mental health problems, and their sexual offending behavior might increase our understanding of this complex relationship. However, a potential pitfall for this type of research might be the under- or overreporting of own history of abuse, internalizing mental health problems as well as sexual offending behavior.

Limitations

The findings of the current thesis must be discussed in the light of some limitations. First, causal relationships between childhood traumatic experience, mental health (problems) and sexual offending behavior could not be established. Large longitudinal studies or retrospective qualitative studies are needed to establish such relationships. Second, we were not always able to distinguish between subgroups of JSOs due to the lack of accurate information. As JSOs constitute a heterogeneous group with a variety of mental health characteristics between subgroups, it is important to register information such as victim type (e.g., child abusers, rapists and mixed offenders) (e.g., Kemper & Kistner, 2007; Parks & Bard, 2006) and the presence or absence of non-sex offenses (Butler & Seto, 2002). In addition, future studies should also be aware of differences in mental health problems in subgroups based on demographic characteristics and judicial status, especially race/ethnicity. Third, recidivism
was determined based on an official registration system. Therefore, offenses unknown to the police and the judicial authorities, the so-called dark number, could not be included. Finally, the use of self-report instruments (e.g., the YPI for psychopathic traits, the CTQ for childhood traumatic experiences, and the MAYSI for mental health problems) might have influenced our results. For example, juveniles with high psychopathic traits scores may underreport on self-report questionnaires because of their manipulative and deceitful behavior.

Despite these limitations, the current study showed that JSOs generally do not seem to persist in their sexual offending behavior, but do seem to reoffend non-sexually. Therefore, treatment of JSOs should rather focus on general offending behavior than on sexual offending behavior in specific. Furthermore, JSOs, especially child molesters, bear high levels of mental health problems. As JSOs who sexually reoffend were more often diagnosed with an affective disorder and more often experienced own sexual abuse than JSOs who did not reoffend sexual, special attention in the assessment and treatment of JSOs, especially child molesters, should be devoted to internalizing mental health problems and its relationship with childhood sexual abuse.

**Future directions**

As mentioned before, JSOs face many difficulties throughout their lives. Treatment that meets the needs of these juvenile perpetrators of sex offenses could not only prevent these youths of (sexual) reoffending, but may also safeguard their development. Until now, follow-up studies in JSOs mainly focused on (sexual) reoffending. As the prevalence rate for sexual re-offending is generally low, it is difficult to examine the relationship between mental health problems in JSOs and persistent sexual offending behavior. In addition, little is known about mental health in JSOs over time (e.g., in young adulthood). Therefore, follow-up research should also examine the stability of mental health problems over time, also taking into account the treatment JSOs received throughout their lives. Our department of child and adolescent psychiatry of the VU University medical center is currently assessing the previously examined sample of Dutch JSOs (see chapter 3 and 4).

In addition, juveniles are increasingly engaged in new media and the internet. With the rise of these new technologies, the use of and exposure to Internet pornography as well as online offending behavior have also increased (Boonmann, Grudzinskas Jr., & Aebi, 2014; Short, Black, Smith, Wetterneck, & Wells, 2012). The mechanism of internet pornography on sexual offending in juveniles is not well understood. In addition, research regarding (mental health problems in) online sexual offending juveniles (e.g., child pornography downloaders, grooming) is scarce. At the time this thesis was designed, however, the influence of social media was not at large as it is now. Future studies should take the influence of the internet of sexual offending behavior in juveniles into account.