CHAPTER 1
General Introduction
Since time immemorial, sex offenses are a major societal problem with serious impact for the victims as well as the perpetrators (Barbaree & Marshall, 2006; Dunsieth et al., 2004). The adverse consequences of sexual abuse, such as posttraumatic stress disorder (PTSD), depression and substance use problems, have been thoroughly examined in victims (e.g., Nagtegaal, 2012; Kilpatrick et al., 2003; Kilpatrick et al., 2000). Research on mental health of the sexual offenders themselves, however, is still limited.

Although adults commit most sex offenses, adolescents are responsible for an estimated 20% of all rapes and 30%-50% of all child sexual abuse cases (Barbaree & Marshall, 2006). In the Netherlands, 16.4% of all registered suspects of a sexual offense are minors (Statistics Netherlands [Centraal Bureau voor de Statistiek, CBS], 2012). Hence, juveniles account for a substantial part of sex offenders. There is a lot of research on adult sex offenders. As these results cannot be generalized to youth samples (e.g., due to developmental changes throughout adolescence), special attention should be devoted to juveniles who sexually offended (JSOs).

Although mental health problems are highly prevalent in JSOs (e.g., ‘t Hart-Kerkhoffs, 2010; Seto & Lalumière, 2010; Van Wijk et al., 2006; Galli et al., 1999; Kavoussi, Kaplan, & Becker, 1988), the connection between these problems and sexual offending behavior in juveniles is still not fully understood. Understanding mental health in perpetrators of sex offenses is likely to carry clinical relevance, as mental health treatment in juvenile offenders in general has been suggested to prevent (sexual) reoffending (Cuellar, McReynolds, & Wasserman, 2006). Therefore, the general aim of the current thesis is to improve our understanding of the relationship between mental health problems and sexual offending behavior in juveniles.

Characteristics of JSOs

Previous research showed that JSOs bear high levels of externalizing as well as internalizing mental health problems (e.g., ‘t Hart-Kerkhoffs, 2010; Seto & Lalumière, 2010; Van Wijk et al., 2006; Galli et al., 1999; Kavoussi et al., 1988), suffer from a lack of social skills (‘t Hart-Kerkhoffs et al., 2009a), and often experienced childhood sexual, physical and/or emotional abuse (e.g., Seto & Lalumière, 2010; Hendriks & Bijleveld, 2008; Van Wijk et al., 2006). Furthermore, JSOs constitute a heterogeneous group with a variety of mental health characteristics between subgroups (e.g., child molesters, group sex offenders) (‘t Hart-Kerkhoffs et al., 2009a; Hendriks & Bijleveld, 2004; Hunter, Figuerdo, Malamuth & Becker, 2003; Hunter, Hazelwood & Slesinger, 2000). While externalizing problems, for example, were more often found in JSOs abusing peers and/or adult (Becker & Hunter, 1997), child molesters are more likely to show internalizing problems (Hunter et al., 2003; Becker & Hunter, 1997). Child molesters also experienced childhood sexual abuse more often (Hendriks & Bijleveld, 2004; Worling & Långström, 2003), re-
ported more psychosexual developmental problems (‘t Hart-Kerkhoffs, Doreleijers, Jansen, van Wijk, & Bullens, 2009b), and had more traits of an autism spectrum disorder (‘t Hart-Kerkhoffs et al., 2009a) than JSOs with peer and/or adult victims.

Still, despite the large body of research on mental health problems in JSOs, the number of studies on mental disorders in (subgroups of) JSOs is scarce, and shows considerable variety between studies (e.g., ‘t Hart-Kerkhoffs, 2010; Galli et al., 1999; Kavoussi et al., 1988). Research on mental disorders in this specific subgroup of juvenile offenders will inform us to what extent child psychiatry should be involved in the assessment and treatment of JSOs, enabling us to develop effective mental health services for these disadvantaged youths.

Juvenile sexual offended compared to juvenile offending in general

Another unresolved issue in the field of juvenile offending is to what extent JSOs differ from juveniles who offend non-sexually (non-JSOs). In their meta-analysis, Seto and Lalumière (2010) examined “what is so special about male adolescent sexual offending” (p. 1). Most important, they found evidence for the presumption that sexual offending in juveniles is not just a manifestation of general antisocial behavior. Atypical sexual interests, and having experienced childhood sexual abuse were more prevalent in JSOs than in non-JSOs, whereas a criminal history, antisocial connections (interaction delinquent peers/gang involvement), and substance abuse were more prevalent in non-JSOs (Seto & Lalumière, 2010).

However, there are several questions that still remain unanswered. First, research comparing JSOs and non-JSOs on mental disorders is largely absent. As previous studies demonstrated, differences in mental health problems between various types of offenders, such as property and violent offenders (e.g., Colins et al., 2009), it is also of interest to compare juvenile offenders of sex crimes to those who commit non-sexual crimes.

Second, in the last few years, there has been an increasing interest in psychopathic traits in juvenile offenders. Seto and Lalumière (2010), however, did not take such traits into account, probably because research in JSOs was still limited. 1 In adults, it has been shown that sexually aggressive behavior is related to psychopathic traits (Kosson, Kelly, & White, 1997; Lalumière & Quinsey, 1996). These results, however, cannot be generalized to the juvenile group, as certain traits of psychopathy, such as lack of impulse control and limited empathy, are supposed to be part of adolescent development in general, and may, therefore, only be temporarily present (Viljoen, Elkovitch, Scalora, & Ullman, 2009; Seagrave & Grisso, 2002; Edens, Skeem, Cruise, & Cauffman, 2001). To understand the relationship between psychopathic traits and sexual antisocial behavior in juveniles, research in JSOs (compared to non-JSOs and/or juveniles in general) is warranted.

Third, it has been suggested that JSOs and non-JSOs differ in demographic characteristics (Van Wijk et al., 2006). Although these demographic characteristics are associated with differences in mental health problems in offenders in general (Archer, Simonds-Bisbee,

1 Seto and Lalumière (2010) included two studies that used the Minnesota Multiphasic Personality Inventory (MMPI) psychopathic deviate scale, but these results were included in the category antisocial personality traits.
Spiegel, Handel, & Elkins, 2010; Vincent, Grisso, Terry, & Banks, 2008; Cauffman, 2004), most studies comparing JSOs and non-JSOs did not control for these variables. In addition, it has been suggested that the prevalence of mental health problems in juvenile offenders increases the “deeper” you go into the criminal justice system (Doreleijers, 2008). Therefore, it is of interest to study mental health problems in JSOs compared to non-JSOs, controlling for demographic characteristics and judicial status, limiting bias of these factors.

Fourth, although rates of childhood abuse as well as the prevalence of mental health problems differ between JSOs and non-JSOs (e.g., Seto & Lalumière, 2010), little attention has been devoted to the direct relation between childhood abuse and mental health problems in these specific groups of offenders. This knowledge will inform us about the relevance of experiences of childhood abuse in the treatment of JSOs.

**Sexual reoffending**

Retrospective research in adult sex offenders indicated that approximately one in three offenders started their sexual offending behavior in adolescence (Longo & Groth, 1983). Therefore, it can be suggested that (at least some) JSOs tend to persist their sexual offending behavior into adulthood. However, research in JSOs has repeatedly found that sexual recidivism rates are relatively low; on average, 7% to 10% of JSOs reoffended sexually (Caldwell, 2010; Fortune & Lambie, 2006). Thus, while adult offenders often started their behavior during adolescence, most adolescent offenders do not seem to continue their offending behavior. It is suggested that JSOs alter their sexual (offending) behavior due to developmental changes/maturity (Caldwell, 2010). Rates of non-sexual reoffending in JSOs, however, were higher. Caldwell (2010), for example, reported a re-offense rate of 43%, implying that sexual offending behavior in some JSOs may be part of a more antisocial lifestyle in general.

In order to prevent sexual and non-sexual reoffending in JSOs, it is important to address specific factors that are responsible for reoffending. Proven factors for sexual reoffending in JSOs are previous convictions for a sex offense, multiple victims, unknown victims, deviant sexual interest, social isolation, and a lack of treatment success (Efta-Breitbach & Freeman, 2005; Worling & Långström, 2003). Furthermore, childhood abuse, antisocial interpersonal orientation, impulsivity, and negative peer influences are currently likely to be related to sexual reoffending in JSOs (Efta-Breitbach & Freeman, 2005; Worling & Långström, 2003). With regard to non-sexual reoffending behavior, previous studies demonstrated that a dysfunctional family history and delinquent peers are important risk factors in JSOs (Efta-Breitbach & Freeman, 2005; Worling & Långström, 2003). Although it has been shown that mental health treatment can reduce criminal recidivism in juvenile offenders in general (Cueela et al., 2006), the relationship between mental disorders in JSOs and the risk for reoffending has only scarcely been examined. Hence, more research on mental health problems in JSOs as risk factor for persistent (sexual) offending behavior is needed.
CURRENT THESIS

The general aim of the current thesis is 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. In order to examine this relationship, JSOs are compared to non-JSOs as well as non-offenders. This will improve our understanding of sexual offending behavior over and above offending behavior in general. Furthermore, as risk factors for sexual offending behavior differ from risk factors for persistent sexual offending behavior, the predictive value of mental disorders for sexual reoffending as well as reoffending in general is also examined. To study our research aims we use four different datasets.

Outline of the current thesis

The aim of chapter two is to establish the prevalence of mental disorders in JSOs, and to examine the prevalence of mental disorders in JSOs compared to non-JSOs, by means of meta-analytic techniques. In total, 21 studies reporting on mental disorders in 2,951 JSOs and 18,688 non-JSOs are included.

In chapter three the prevalence of mental disorders in subgroups of JSOs is examined. Additionally, the relationship between mental disorders and sexual and general reoffending is studied. The sample consists of 106 male juvenile suspects of a sexual offense referred to the Child Protection Board (CPB) between May 2003 and December 2006. All youths were examined by means of a standardized questionnaire package on mental health problems and offense-related characteristics. This package included the K-SADS-PL (Schedule for Affective Disorders and Schizophrenia for school age children - Present and Lifetime [Kaufman, Birmaher, Brent & Rian, 2006; Kaufman, Birmaher, Brent, & Rian 1997]) a semi-structured interview for mental disorders listed in the Diagnostic and Statistical Manual of Mental Disorders IV (APA, 1994), and the Children’s Global Assessment Scale (CGAS; Shaffer et al., 1983), used to examine the level of function. Based on offense characteristics (i.e., age of the victim and number of offenders) retrieved from both official registration systems and CPB files, JSOs are classified into three subgroups: (1) child molesters: offenders suspected of having sexually abused children (below 12 years of age) who were at least four years younger than the offender self; (2) solo assaulters of peers or adults: offenders suspected of having raped or sexually assaulted peers (at least twelve years old) and/or adults; (3) group sex offenders: offenders suspected of having raped or sexually assaulted peers (at least twelve years old) and/or adults as part of a group.

In chapter four, the prevalence of self-reported psychopathic traits is studied in subgroups of JSOs. In addition, self-reported psychopathic traits in JSOs are compared to non-JSOs as well as juveniles from the general population. The sample in this study consists of 71 male juvenile suspects of a sexual offense referred to the CPB between May 2003 and December 2006 (i.e., a subgroup of the sample described in chapter three). All JSOs completed the YPI (Youth Psychopathic traits Inventory [Andershed, Kerr, Stattin, ...]}
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& Levander, 2002)), a self-report instrument for psychopathic traits. In line with chapter three, JSOs are classified into three subgroups: (1) child molesters, (2) solo assaulters of peers or adults, and (3) group sex offenders. In addition, JSOs were compared to 416 juvenile male detainees and 331 males from the general population. The juvenile detainees were recruited from two juvenile detention centers in the Netherlands, assessed between May 2008 and May 2010. The YPI was part of a standardized self-report mental health screening procedure. The general population youths were retrieved from the upper grades of two secondary schools in the northern parts of the Netherlands.

The aim of chapter five is to provide more insight into differences in mental health problems between JSOs and non-JSOs, controlled for demographic characteristics and judicial status. Moreover, subgroups of JSOs based on demographic characteristics and judicial status are compared on mental health problems. In total, 334 male JSOs and 334 non-JSOs (matched on age, race/ethnicity, type of facility, and adjudication status) are retrieved from a larger United States data set. All juvenile offenders were examined by means of the MAYSI-2 (Massachusetts Youth Screening Instrument-Version 2 [Grisso & Barnum, 2006; Grisso, Barnum, Fletcher, Cauffman, & Peuschold, 2001]), a brief tool that measures mental health problems among juvenile justice-involved male youth. The MAYSI-2 was part of the standardized screening of the juvenile offenders at entry in prison. Youths are classified as JSOs or non-JSOs based on their index offense.

In chapter six, the relationship between childhood traumatic experiences and mental health problems in JSOs compared to non-JSOs is investigated. The sample comprised 44 male JSOs and 763 non-JSOs incarcerated in two juvenile detention centers in the Netherlands, assessed between May 2008 and March 2014. The MAYSI-2 was used as part of a standardized self-report mental health screening procedure. Youths are classified as JSO if their official judicial record showed a history of conviction for a sexual offense, or if they reported having ever engaged in sexual behavior against someone else’s will.

Finally, in chapter seven a summary of the results as well as a general discussion will be presented. It will end with a final conclusion and recommendations for future policy and research.