CHAPTER 1

Introduction
In the Netherlands, yearly four to five thousand children under age twelve are registered by the police because they are suspected of having committed an offence (van der Laan et al., 2008). In this thesis, these children are called childhood arrestees. Their number as well as the phenomenon of offending at such an early age are of concern to society and an important reason for researchers, policy makers and the police to focus on these children. Even more so since the majority of older offenders are known to have started offending already during childhood (Loeber et al., 1998). Further to this, childhood arrestees constitute a particularly relevant group, since early onset offending increases the risk of chronic and serious offending later in life (Snyder, 2001). It is, moreover, also associated with multiple problems in the individual and his or her environment which may over time develop into adverse outcomes, including psychiatric problems, physical health problems, victimization and unemployment (Loeber & Farrington, 2001b; Moffitt et al., 2002; Odgers et al., 2007).

Particularly a police arrest in childhood is a robust predictor of future offending. Not only have childhood arrestees been found to re-offend more frequently as compared to juveniles arrested at an older age, they also more often commit serious and violent offences (Snyder, 2001). However, notwithstanding their elevated risk of delinquent development, a substantial part of childhood arrestees does not develop into chronic offenders (van Domburgh et al., 2009b; Cohn et al., 2012). This heterogeneity among these children poses a challenge to police-practice and policy regarding childhood arrestees. There are calls to intervene at an early stage of delinquent development to prevent escalation into serious delinquency. In doing so, false-positive identification of risk and associated unnecessary intervention should be avoided, as this is cost-ineffective and may even be harmful to healthy developing children (Hill et al., 2004). However, at present, effective recognition of those children most at risk and the development of appropriate approaches are complicated by lack of knowledge on childhood arrestees and their risk of problematic development.

The number of children under twelve years of age that is registered by the police because of offending is likely an underestimation of the actual number of childhood arrestees. As twelve years is the age of criminal responsibility for Dutch

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1 In this thesis children registered by the police because they committed an offence are called childhood arrestees, although not all children were taken to the police station because they were reprimanded on the spot.
law, information on these children and their offences may not always be fully registered by the police (van der Laan et al., 2008). In a large self-report survey, about one third of ten to eleven year old children reported to have committed at least one offence in the past year (van der Laan & Blom, 2006). In the survey results of 2010 the number of children having committed at least one offence (excluding fare dodging and setting off fireworks) did not differ compared to five years earlier, although slightly less property offences were reported (van der Laan & Blom, 2011).

Besides from a re-offending-risk perspective, childhood arrestees are also a relevant group from a clinical point of view. Offending often co-occurs with other problems, such as mental health problems, school problems, substance use and family problems (Loeber & Farrington, 2000; Moffitt & Caspi, 2001; Doreleijers et al., 2001; Dembo et al., 2008; van Domburgh et al., 2009a). High rates of common mental disorders, both externalizing and internalizing, were found among adolescent offenders (Teplin et al., 2002; Fazel et al., 2008; Colins et al., 2010). Similarly, in a young adolescent school-based sample, those having been arrested were shown to bear higher levels of both internalizing and externalizing mental health problems than their non-arrested counterparts (Vermeiren et al., 2004). Furthermore, in young adolescent offenders problems in the family, peer, educational and mental health domain could be identified (Dembo et al., 2008). In addition, the developmental course of mental health problems was shown to mirror the course of disruptive behavior over time (Barker et al., 2010). Understanding childhood arrestees’ problems co-occurring with their delinquent behavior may enhance recognition of children in need of adequate care. Moreover, this can provide directions for effective prevention and intervention targeted to children’s specific needs. Addressing such needs at an early stage will reduce the risk of later adverse mental health outcomes. More knowledge on the characteristics and development of childhood arrestees is, therefore, urgently needed.

Various developmental theories have attempted to explain the causes of offending and the related increased risk of a deviant development. Early onset offending specifically can be viewed from different perspectives. One point of view is that it is etiologically distinct from late onset offending as suggested by Moffitt (1993) and Patterson (1989). According to Moffitt’s developmental taxonomy, early onset life course persistent antisocial behavior arises from neurodevelopmental problems expressed as impulsivity, hyperactivity and impaired cognitive
functioning, together with inadequate parenting practices (Moffitt, 1993). Further research into this taxonomy indicated that antisocial behavior does not persist in all children in the early onset group and revealed a low level chronic group. These children showed similar prolonged delinquent involvement to the early onset life course persistent group, but at decreased frequency and seriousness after childhood (Moffitt et al., 2002). Although the low level chronic group differed from the early onset persistent group with regard to the extent of antisocial behavior (Moffitt et al., 2002), they share many characteristics such as family adversities and undercontrolled temperament in childhood (Barker & Maughan, 2009). In his coercion theory, Patterson (1989) considers disrupted parenting practices as the main explanatory factor for an early start of antisocial behavior. Inadequate parenting reinforces children’s coercive behavior and prevents adequate coping with children’s antisocial behaviors (Patterson et al., 1989). Both theories consider late onset, temporary antisocial behavior to be more normative as compared to early onset antisocial behavior and to mainly originate under the influence of delinquent peers (Patterson et al., 1989; Moffitt, 1993). The continuity of antisocial behavior is, furthermore, hypothesized to be the result of the proposed underlying causal factors limiting a healthy development. This may lead to an accumulation of adversities and further embedding of an antisocial life style (Patterson et al., 1989; Moffitt, 1993).

Because of their early onset of offending, childhood arrestees are at elevated risk of persistent offending and experiencing problems related to early onset antisocial behavior, in line with these above mentioned theories (Patterson et al., 1989; Moffitt, 1993). However, antisocial behavior is to a certain extent part of children’s normal development (Loeber et al., 2008d). It is thus far largely unknown to what extent childhood arrestees will experience detrimental outcomes and whether such elevated risk equally applies to all of these children. Theories on early onset antisocial behavior have, furthermore, mainly been based on findings from large longitudinal studies in the general population and self-report measures of problem behavior (e.g. Moffitt et al., 1996; Loeber & Farrington, 2000). Such studies have provided major contributions to the identification of risk- and protective factors in the development of offending. Findings from these general population studies may, however, not apply to the specific high-risk group of childhood arrestees. Although it is commonly accepted that they are at increased risk of adverse outcomes, a police arrest may not necessarily be representative of
children’s antisocial behavior and consequently may not in all cases indicate a likely deviant development. Studies particularly focusing on childhood arrestees are, therefore, warranted.

Previous findings from the same study population as described in this thesis indicated substantial heterogeneity regarding the course of offending among these children (van Domburgh et al., 2009b; Cohn et al., 2012). When looking at official offence records, only part of the children showed persistent or increasing offending behavior during five years following first arrest, while the majority did not re-offend or re-offended very infrequently (van Domburgh et al., 2009b). Childhood arrestees were, furthermore, likely to experience externalizing mental health problems, family problems and peer relationship problems (van Domburgh et al., 2011; Cohn et al., 2012). Despite this knowledge on characteristics of childhood arrestees, it remains largely unknown how these co-occurring problems are related to delinquent development. In order to direct effective intervention to those children most in need, knowledge on the development of problems co-occurring with offending per se, as well as in relation to re-offending risk, is crucial for both clinical and police practice.

In conclusion, a better understanding of the characteristics and development of childhood arrestees is needed to timely and accurately recognize children most at risk of a deviant development. Effective recognition may enable prevention of such deviant development. In addition, insight in, as well as timely recognition of, childhood arrestees’ problems co-occurring with offending may guide intervention, thereby increasing the likelihood of healthy development.

Aims and design of the study
This study, therefore, investigated the two-year development of very young offenders with regard to offending and related problems. Specific aims of the thesis were:

- to investigate the presence of clusters characterized by distinct profiles of correlates of early onset offending and their association with later offending and victimization;
- to describe the presence and course of mental health problems and impaired psychosocial functioning over time;
- to investigate the association between mental health problems and persistent offending.
The development of very young offenders was investigated in a prospective longitudinal study. As they have not yet reached the age of criminal responsibility, childhood arrestees and the offences they commit do not appear in national crime statistics. However, occasions where children come to the attention of the police, for reasons of offending or otherwise, are recorded in local police registration systems. This study includes a unique sample of children registered by the police in the period from 2003 to 2005 because they committed a first offence under the age of twelve.

Children were selected from local police registration systems in three police districts in The Netherlands (Rotterdam-Rijnmond, Gelderland-Midden and Utrecht). Offending was defined as behavior that could be prosecuted if displayed by someone aged twelve years or older, excluding status offences. The final sample consisted of 308 children between 5 and 11 years of age at the time of first arrest. Children were followed up after one and two years, respectively. At each assessment, standardized instruments - interviews as well as questionnaires - were administered to the children, their parents and their teachers. Complete follow-up data were available for 76.3% of the children. Participants who dropped out during follow-up did not differ on age, sex, ethnicity and socio-economic status (SES) defined by neighborhood, from participants who completed all assessments.

Outline of this thesis

In chapter 2 the presence of clusters characterized by distinct profiles of problems co-occurring with early onset offending among our group of childhood arrestees is explored. In addition, cluster membership transition after two-year follow-up is described. Identification of such clusters in this heterogeneous high-risk group may enhance effective recognition of those children in need of adequate care and provide directions for effective prevention and intervention targeted to children’s specific needs. Latent Class Analysis (LCA) were used to detect clusters based on dichotomous dynamic factors known to be related to early onset offending within the general population. Using standardized instruments, correlates at the individual, peer and family domains were assessed at baseline and at two-year follow-up. In order to calculate cluster membership transition over two years, cluster membership probabilities were calculated with the baseline model and the responses at two-year follow-up.

In chapter 3 the investigation of differences in level of antisocial behavior and victimization between the clusters found in chapter 2 is described. Furthermore, in
order to determine their clinical value in predicting such adverse outcomes, the
association between the observed clusters and co-occurrence of antisocial behav-
ior and victimization was analyzed. Data on offending were obtained from both
self-report and parent report, as well as from police registration systems. Inform-
ation on victimization was also obtained from police registration systems and by
self-report data on victimization of bullying.

In chapter 4 the prevalence of mental health problems and impaired psychoso-
cial functioning at baseline and during follow up is described. Mental health
problems and indicators of psychosocial functioning were measured at baseline,
one-year and two-year follow-up using standardized instruments. The two-year
course of these problems is studied both at group and individual level. To provide
insight in the extent and course of problems over time in childhood arrestees at
group level, change of the prevalence rates across time was analyzed. Further-
more, insight in the persistence of problems once present in an individual is
particularly relevant for clinical practice. Therefore, as prevalence rates at various
time points do not necessarily include the same individuals, the course of prob-
lems within the individual was also determined.

In chapter 5 the association between mental health problems and offending
in childhood first-time arrestees is explored by investigating the predictive value of
these problems for future offending. Effective recognition may enable adequate
prevention of such deviant development and addressing these children’s mental
health needs is likely to improve their general well-being. In order to improve
identification of at-risk children, the predictive value of mental health problems
based on single assessment compared to multiple assessments for future offend-
ing is evaluated. The course of offending, both based on self- and parent-report, as
well as on police registrations, is also described. Mental health problems were
reported by both children and parents at baseline and at one-year follow-up. Off-
fending, both based on combined self- and parent-report, as well as on police
registrations, was assessed after one- and two-year follow-up.

In chapter 6 we specifically focus on autistic symptoms in relation to offend-
ing. The study described in this chapter aimed to investigate the presence of
autistic symptoms in childhood arrestees by comparing our sample on levels of
autistic symptoms with matched comparison groups. Comparison groups consisted
of a general population sample and a sample of children with autism spectrum
disorder. In addition, for our group of childhood arrestees, the unique predictive
value of autistic symptoms for future offending was assessed, corrected for co-
occurring externalizing disorders. Autistic symptoms were assessed yearly using a 
questionnaire, while externalizing disorders were determined using a diagnostic 
interview both at baseline and two-year follow-up. Data on offending were ob-
tained at each assessment from both self-report and parent report.

Finally, in chapter 7 the main findings of this thesis are summarized and dis-
cussed.