

Rolf Loeber and Wim Slot

Serious and Violent Juvenile Delinquency: An Update

ABSTRACT

This essay updates findings set out in *Ernstige en gewelddadige jeugddelinquentie: Omvang, oorzaken en interventies* [Serious and Violent Juvenile Delinquency: Prevalence, Causes, and Interventions] (2001), edited by Rolf Loeber, N. Wim Slot, and Joseph A. Sergeant. Recent secular changes in the prevalence of antisocial behavior and serious delinquency are either unknown or inclusive. Developmental aspects of sexually delinquent behaviors remain poorly understood. Similar risk factors explaining delinquency apply to different ethnic groups. The severity of delinquency is positively associated with the presence of mental health disorders, but not all studies agree. Increasing population diversity requires use of measurement instruments that are culturally sensitive and reliable. Similar relationships between family factors and antisocial behavior hold for different ethnic groups. Progress has been made with the construction of screening devices for the identification of high-risk groups of youths. Advances have been made in implementing and evaluating preventive programs for different age groups, but evaluations of interventions in juvenile institutions and in the justice system remain a high priority.

The Netherlands occupies a special place in criminology—a smallish country that until recent years traditionally has been characterized by low levels of crime and few of the risk factors associated with high crime levels in the United States, such as high concentrations of poverty, urban gangs, and widespread gun ownership.

In 2001, with the help of thirty-four colleagues, we published a book

We are very grateful to the following collaborators for updating their earlier contributions to Loeber, Slot, and Sergeant (2001): Arnold A. J. Bartels, Bram Orobio de Castro, Maja Deković, Andrea G. Donker, Theo A. H. Doreleijers, Marijke Hofstra, Jan M. A. M. Janssens, Marianne Junger, Josine Junger-Tas, Wim Meeus, Evert M. Scholte, Robert Vermeiren, Frank C. Verhulst, Nicole M. C. van As, Peter van der Laan, and Anton Ph. van Wijk.

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on serious and violent juvenile crime in the Netherlands, *Ernstige en gewelddadige jeugddelinquentie: Omvang, oorzaken en interventies* (Loeber, Slot, and Sergeant 2001). The purpose of this extended essay is to provide an update of that volume. Most of the key authors of chapters in the earlier book were ready to provide updates on their areas of expertise.

Before letting the authors speak, we reiterate the aims of the 2001 volume because they apply to this essay. We wanted to present current empirical knowledge of the development of serious and violent criminal behavior by juveniles, associated risk factors, and the best interventions to prevent and reduce crime. A second objective was to place Dutch findings in an international context. This is important because research opportunities in the Netherlands to generate more insights into juvenile crime have been and continue to be limited. Another objective was to link information to preventive and remedial interventions so that policy and practice could focus on evidence-based interventions.

These objectives remain important and are reflected in this essay, which covers the following topics (with collaborators shown in parentheses): crime trends (Meeus), sex offenders (van Wijk), ethnic aspects of juvenile crime (Orbio de Castro and Junger), co-occurring problems (Doreleijers, Scholte, and Vermeiren), development of antisocial behavior (Verhulst, Donker, and Hofstra), and family aspects of juvenile delinquency (Deković, Janssens, and van As). A separate section deals with justice policy and applications, including screening (Scholte and Doreleijers), prevention (Junger-Tas), interventions in institutions (Bartels), and interventions by the police and the courts (van der Laan). Each section very briefly summarizes past work and presents important findings since 2001. Major changes are taking place in the Netherlands that are relevant for reducing and preventing serious juvenile delinquency. We conclude the essay with comments on several key issues and their policy implications.

I. Serious, Violent, and Persistent Youth Delinquency¹

In this section we focus on trends in serious, violent, and persistent juvenile delinquency between 1950 and 2004 and some key features of the association between serious, violent, and persistent forms of delin-

¹ Wim Meeus provided the material on which this section is based.

quency. Serious offenders are defined as those youngsters who committed at least one of the following offenses during the last year: fencing, arson, burglary, theft from a car, carjacking, and pickpocketing. Violent offenders are those who committed at least one of these offenses during the last year: homicide, maltreatment, robbery, rape, assault, threats, fighting, public violence, and injury by weapon. Persistent offenders are those who committed five or more offenses during the last year. These definitions of serious and violent delinquency differ in two respects from the definitions by Loeber, Farrington, and Waschbusch (1998): violent offenses were not necessarily a subcategory of serious offenses, and less severe indicators of serious and violent delinquency were used.

A. Review of Earlier Findings

Two types of data are available: police statistics (CBS 1996) and national self-report surveys (Junger-Tas and Kruissink 1987, 1990; Junger-Tas, Kruissink, and van der Laan 1992; Junger-Tas and van der Laan 1995; van der Laan et al. 1998).

1. *Serious Delinquency (1985–96)*. Police data, covering the period 1985–96, showed an increase in burglary after 1991 and a decrease in fencing. Self-report data showed no systematic trend for arson. In sum, no evidence was found for a systematic increase or decrease in serious youth delinquency during this period. No other trend data on serious delinquency were available.

2. *Violent Delinquency (1952–96)*. Police statistics contain information on homicide and child maltreatment for the period 1952–96. Between 1952 and 1970, almost no cases of murder were reported (a rate of less than one adolescent per 100,000 per year). The homicide rate increased to nine adolescents per 100,000 a year by the end of the 1980s and to thirty per 100,000 during 1990–96. For maltreatment a similar pattern was found: a relatively stable figure of forty to fifty per 100,000 in the period 1952–72, an increase to about 130 between 1972 and 1990, and a steeper increase to more than 340 between 1990 and 1996. Self-report data on maltreatment showed an increase between 1988 and 1990 and stabilization between 1990 and 1996.

Police statistics were available for robbery, rape, and assault for the period 1978–96. Robbery increased regularly from about thirty youngsters per 100,000 at the end of the 1970s to almost 180 per 100,000 in 1996. Rape did not show a regular trend: in the 1980s a small in-

crease was reported; in 1987 there was a sudden decrease, followed by a strong increase between 1987 and 1996. The number of offenders in the period 1994–96 was clearly higher than in prior years. The figures for assault fluctuated in the 1980s but increased strongly from 1991 on. From 1992 onward the prevalence of violence was consistently higher than in the preceding years. The self-report surveys showed a linear increase in threats and fighting between 1988 and 1996.

Several conclusions can be drawn from these results. First, the prevalence of all types of violent delinquency was higher in 1996 than in 1952 or 1978 and increased strongly from 1988 onward. Second, the observed trends were not consistent: the figures on murder and maltreatment showed hardly any change between 1952 and 1970, whereas the same was observed for the data on rape and assault in the 1980s. We concluded that violent delinquency rose in the observed time period. However, there were two caveats: our conclusion was valid only if we assumed that the definitions of the various categories of offenses did not change over time and no changes in recording practices were operating during the observed period. The observed increase in violence could be attributed to an increased readiness by Dutch police to record violent offenses and to improved registration methods due to automation (Wittebrood and Junger 1999). Contrary to this interpretation, the self-report surveys also showed an increase in violent offenses in the period 1988–96, indicating that changes in recording methods by the police could not be the sole cause of the increasing figures.

3. *Co-occurrence of Serious, Violent, and Persistent Youth Delinquency.*

To demonstrate co-occurrence between serious, violent, and persistent youth delinquency, we used data from the 1991 wave of the Utrecht Study of Adolescent Development (USAD), 1991–97 (Meeus and 't Hart 1993). The 1991 wave includes data on 3,392 youngsters aged twelve to twenty-four. 't Hart (1992) compared the 1991 sample of the USAD with other samples and found it to be representative of the indigenous Dutch adolescent population in 1991.

Of the 3,392 youngsters, 849 (25 percent) were classified as serious, violent, or persistent offenders. Of this group, 251 were classified as serious offenders (7.4 percent of the total sample), 279 as violent offenders (8.2 percent of the total sample), and 659 as persistent offenders (19.4 percent of the total sample). Figure 1 shows the co-occurrence of serious, violent, and persistent delinquency and shows that 29 per-

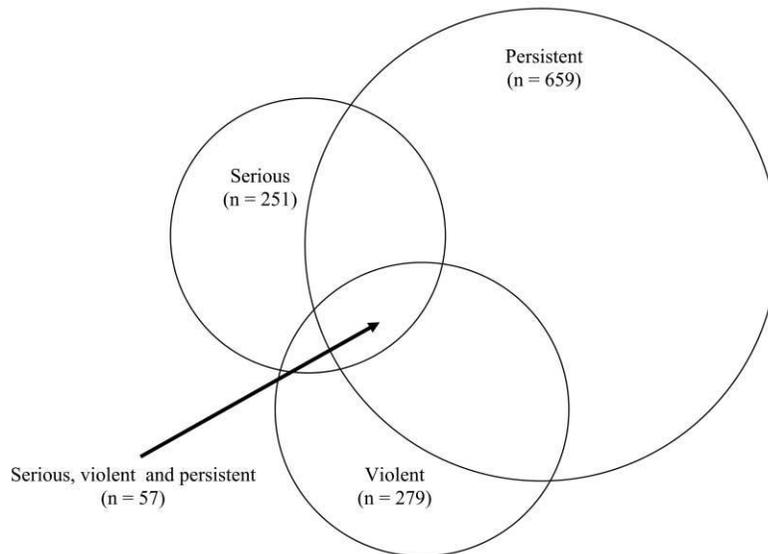


FIG. 1.—Co-occurrence of serious, violent, and persistent delinquency, 1991

cent of the serious offenders ($N = 73$) were also violent offenders, 63 percent of the serious offenders ($N = 158$) were also persistent offenders, 59 percent of the violent offenders ($N = 166$) were also persistent offenders, and 6.7 percent of the total group of offenders ($N = 57$) were serious, violent, and persistent offenders (1.6 percent of the total sample). We concluded that the co-occurrence of serious and persistent delinquency and the co-occurrence of violent and persistent delinquency were substantially bigger than the co-occurrence of serious and violent delinquency.

4. *Age and Age of Onset.* Serious, violent, and persistent delinquency all showed a curvilinear relation with age: an increase from early ages (twelve to fourteen) to middle adolescence (fifteen to seventeen), a decrease from middle to late adolescence (eighteen to twenty), and a further decrease from late to postadolescence (twenty-one to twenty-three). So, for serious, violent, and persistent delinquency, the same age-crime curve (Farrington 1986) was found as for youth delinquency in general. In middle adolescence, the prevalence of serious, violent, and persistent delinquency in boys rose to 15, 18,

TABLE 1
Backgrounds of Serious, Violent, and Persistent Delinquency

	Serious Delinquency	Violent Delinquency	Persistent Delinquency
Mean age of onset	14.77	14.47	10.22
	Alone or Together?		
Always alone	43.9%	12.3%	21.8%
Sometimes alone, sometimes together	6.6%	5.6%	45.6%
Always together	49.6%	82.1%	32.6%
	Contribution of Persistent Offenders to Total Volume of Delinquency		
Persistent offenders (19 percent of total sample)	67%	62%	. . .
Serious, violent, and persistent offenders (1.6 percent of total sample)	27%	21%	. . .

and 40 percent respectively and for girls to 5, 5, and 15 percent respectively.

Table 1 shows mean ages of onset of serious, violent, and persistent delinquency. Mean age of onset was found to be substantially lower for persistent delinquency than for serious and violent delinquency: 10.22, 14.77, and 14.47, respectively. At age ten, 55.8 percent of the persistent offenders have already committed delinquent acts, whereas the groups of serious and violent offenders reach this percentage only at the age of fifteen.

5. *Co-offending.* Table 1 shows to which extent youngsters committed serious, violent, and persistent delinquency alone or together with peers. More than 80 percent of violent offenses were committed together with other peers, whereas only 43.9 percent of serious offenses were. Violent delinquency mostly took place collectively with peers, whereas serious delinquency had a more individual profile. Persistent delinquency did not show a clear profile with respect to the dimension alone or together.

6. *Contribution of Persistent Offenders to Total Delinquency.* Table 1 shows that the persistent offenders, 19 percent of the total sample, were responsible for 67 percent of the serious and 62 percent of the

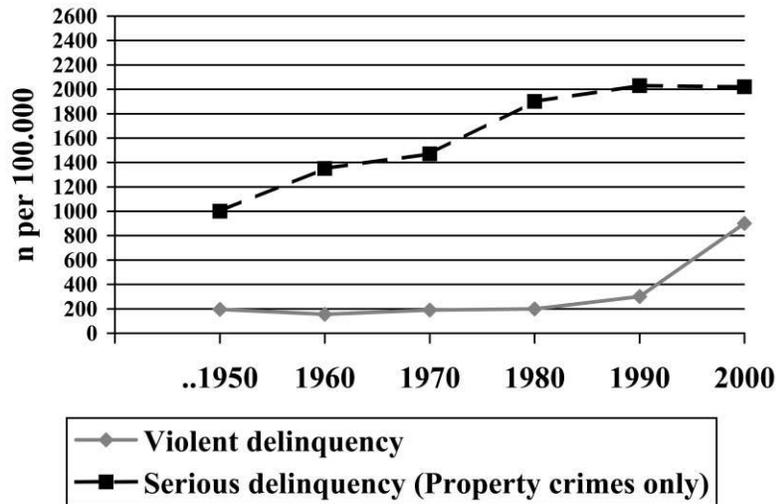


FIG. 2.—Police statistics of serious and violent delinquency, 1950–2000

violent offenses, respectively. The serious, violent, and persistent offenders, 1.6 percent of the total sample, were responsible for 27 percent of serious offenses and 21 percent of the violent offenses, respectively. These findings supported the classical findings of Wolfgang, Figlio, and Sellin (1972) that persistent offenders constitute a smaller portion of all offenders but are responsible for a disproportionately huge share of all offenses.

B. Recent Findings

Did the level of juvenile delinquency change between 1996 and 2004 (the most recent available data)? Regular repeated self-report surveys (Wittebrood 2003; Zeijl 2003; Kruissink and Essers 2004; Blom, van der Laan, and Huijbregts 2005) and updates of police statistics (Wittebrood 2003; Blom, van der Laan, and Huijbregts 2005) make it possible to present additional trend data on serious and violent delinquency. Figure 2 shows police statistics on serious (property offenses only) and violent offenses between 1950 and 2004 and shows that serious delinquency systematically rose between 1950 and 1985. The figure also confirms our earlier observation that between 1985 and 1996 serious delinquency did not increase. However, between 1996 and

2004, a substantial increase in serious delinquency was observed. Self-report data on serious delinquency from 1990 to 2004 (Kruissink and Essers 2004; Blom, van der Laan, and Huijbregts 2005) substantiate that serious delinquency did not rise between 1990 and 1996, but failed to find support for the increase between 1996 and 2004. Taken together, these data show that serious delinquency rose between 1950 and 1985 and stabilized between 1985 and 2000, but the findings for the period 1996–2004 are inconclusive.

Data on violent delinquency (fig. 1) confirm our earlier observation of a particularly strong increase from the 1980s on. This increase continued between 1990 and 2004. However, self-report data on violent delinquency from 1990 to 2004 (Kruissink and Essers 2004, p. 11; Blom, van der Laan, and Huijbregts 2005, p. 44) suggest that violent delinquency peaked in 1996 and stabilized thereafter. In sum, these findings show that violent delinquency did not change much between 1950 and 1980 and increased from 1980 on. Findings are inconclusive as to whether the increase continued between 1996 and 2004.

One possible reason for the increase in youth delinquency could be that young people start committing offenses earlier. Recently, Kruissink and Essers (2004) published findings of age of onset for various offenses for the period 1990–2001; they did not find any systematic change. Thus decrease of age of onset did not seem to offer a valid explanation for recent increases in juvenile delinquency. However, Blom, van der Laan, and Huijbregts (2005) found a slight increase in age of onset between 2002 and 2004.

Two recent nationwide surveys (Zeijl 2003; Kruissink and Essers 2004) reported on various backgrounds and predictors of youth delinquency. Both studies showed the well-known and often-reported risk factors to be predictive of youth delinquency: poor parent-adolescent relations, poor peer relations, poor school performance, substance use, and internalizing problems. So, no new risk factor of delinquency was found, and the same risk factors as before seemed to be predictive of youth delinquency.

Under Dutch juvenile criminal law, most young offenders are sentenced to alternative sanctions or to community service. Data show a strong increase in the use of alternative sanctions between 1990 and 2000 (Wittebrood 2003). In 1990, about six per 1,000 twelve- to seventeen-year-olds were sanctioned, whereas in 2000, twenty out of 1,000 were. Statistics Netherlands data show the same picture for sentences

to community service: in 1990 about 2,000 young offenders were convicted to these duties, whereas in 2000, the number rose to about 12,000 (Wittebrood 2003). These findings are not inconsistent with an increase in serious and violent delinquency we reported earlier and also indicate that Dutch justice personnel probably apply sanctions to delinquent acts at a higher rate than before.

C. Conclusions

Serious delinquency rose between 1950 and 1985 and remained stable between 1985 and 2000; findings for the period 1996–2004 are inconclusive. Violent delinquency did not change much between 1950 and 1980 and increased from 1980 on; findings are inconclusive as to whether the increase continued between 1996 and 2004.

The co-occurrence of serious and persistent delinquency, and the co-occurrence of violent and persistent delinquency, were found to be substantially larger than the co-occurrence of serious and violent delinquency.

Serious, violent, and persistent delinquency all showed a curvilinear relation with age. A decrease in the age of onset (and an associated higher prevalence of early-onset cases) does not seem to offer a valid explanation for recent increases in youth delinquency.

The mean age of onset was substantially lower for persistent delinquency than for serious and violent delinquency: 10.22, 14.77, and 14.47, respectively.

Most violent offenses were committed together with other peers, whereas less than half of serious offenses were.

Although persistent offenders constitute a small portion of all offenders, they are responsible for a disproportionately large share of all offenses.

Recent nationwide studies show the same risk factors to be predictive of youth delinquency as in earlier studies.

Dutch justice personnel probably apply sanctions to delinquent acts at a higher rate than before.

D. Implications

Knowledge about criminal careers in the Netherlands for a long time has been hampered by the absence of large-scale longitudinal studies. This led Dutch researchers to design new longitudinal studies (beyond the traditional three-wave design) that focus on how risk and protective

factors influence developmental trajectories of juvenile delinquency. Recent examples include the Research on Adolescent Development and Relationships study (known as RADAR) by Meeus and Koot and the Tracking Adolescents' Individual Lives Survey (known as TRAILS) by Ormel and Verhulst. The planned number of waves of these studies ranges between eight and twenty. Combining these new designs with new statistical tools, especially Latent Growth Modeling, makes it possible to document different developmental trajectories of juvenile delinquency. For instance, Bongers et al. (2004) found four trajectories of status violations in four- to eighteen-year-olds: extremely high persisters, high persisters, low decreaseers, and a near-zero group.

It is clear that longitudinal studies should focus on developmental transitions. Because of these transitions, life arrangements change and risk factors can have effects completely different from those in earlier periods. For instance, the early adolescent transition from primary to secondary education may change parental monitoring and affect frequency and number of offenses.

Longitudinal studies should include measures of various levels of individual functioning: neurobiological measures, measures of basic behavioral tendencies such as inhibition and activation, personality tests, and sociocognitions such as empathy and perspective taking. Longitudinal studies should focus on relationship dynamics, for instance, on how parents influence friendship and intimate partner choices of their children and—through this influence—affect the relational contexts in which their children operate and that affect childrens' development. Selection and influence in friendships are other important issues: does initial similarity in delinquency between friends become stronger or weaker over time, and is it possible to disentangle processes of selection and influence in the friendship dyad?

The new longitudinal studies will be able to detect mechanisms that are crucial for the designing of individual, family, and peer-oriented programs to prevent juvenile delinquency.

II. Juvenile Sex Offenders²

The study of sexual violence as a specific form of violent juvenile delinquency has been going on in the United States for decades, but it accelerated in the Netherlands only from the mid-1990s onward (van

² Anton Ph. van Wijk provided the material on which this section is based.

Wijk et al. 2001). A few studies have focused on the type of offense and the characteristics of the victim (Bruinsma 1996; Boelrijk 1997; van Wijk 1999), whereas other studies have been based on the ways in which sexual offenses are committed (Hendriks and Bijleveld 1999) or the nature of the criminal career (van Wijk and Ferwerda 2000). Results vary much because of different sampling strategies, use of different measurement instruments, and different scientific disciplinary approaches. Nevertheless, results show that juvenile sex offenders tend to have their first contact with the justice system around age fifteen when they often are referred for rape of peers. There is a small number of studies that consider the social relationships of juvenile sex offenders, their sexual development, drug use, and psychopathology. Cognitive treatment of juvenile sex offenders has been the method of choice in most English-speaking countries and has focused on improving communication, empathy, and taking on responsibility for one's own behavior.

A. Review of Earlier Findings

We used Barbaree, Marshall, and McCormick's (1998) integrated model of sexual offenders, which explained the origin and development of juvenile sexual delinquent behavior, and proposed that the family in which the youngster grows up is an important etiological element. If there is a lack of care (neglect or abuse, e.g.), the youngster may find it difficult to bond with others. If the youngster has been the victim of sexual violence and is impulsive by nature, this could lead to the syndrome of social disability, consisting of an inability to form social relationships, low self-esteem, and antisocial and delinquent behavior. These factors, when co-occurring with a developing sexually deviant excitement pattern, can eventually result in sexual offenses.

The question is whether this model applies to all sexual delinquents. Studies on juvenile sex offenders present different classification schemes and show that juvenile sexual offenders constitute a heterogeneous group of offenders. Aside from clinical distinctions and the distinction between hands-on and hands-off sexual offenses, the literature distinguishes between child molesters and rapists. In addition, some studies focus on the two kinds of characteristics of the offense (such as male or female gender of the victim, use of violence or not). In each instance, the two types have in common that offenders often

TABLE 2
Prevalence of Sexual Offenses (per 10,000 Juveniles 12–17 Years Old)

	Exhibitionism	Rape	Sexual Assault	Other	Total
1991	.59	.79	1.09	.74	3.21
1993	.32	1.03	1.71	1.01	4.07
1995	.42	1.31	2.94	1.07	5.74
1997	.43	1.61	3.09	2.61	7.74
1999	.62	1.64	4.65	1.81	8.72
2001	.63	1.80	3.65	1.76	7.84
2003	.54	1.78	4.21	1.69	8.22

SOURCE.—WODC/CBS.

come from problematic families with few attachments between the child and parents.

Recidivism rates of nonsexual offenses tend to be higher than for sexual offenses. Whether differences in the recidivism rate vary depending on ethnicity of the parents of the sexual offenders is not clear because of methodological differences among the studies. Child molesters appear to have problems in peer relationships and are often described as loners with internalizing problems. Compared to rapists, child molesters have often been sexually maltreated in their youth. In contrast, rapists often are more oriented toward group offending and are characterized by externalizing problem behaviors. Studies do not show a consensus about the use of alcohol and drugs or the cognitive functioning of juvenile sex offenders.

B. Recent Findings

Since the earlier review (van Wijk et al. 2001), several studies have shed light on the behavior and risk factors of juvenile sex offenders.

1. *An Increase in Sexual Offenses?* Data from Statistics Netherlands show that the number of underage youngsters (twelve to eighteen years old) who come into contact with the police as a result of a sexual crime increased between 1990 and 2003 (385 youngsters in 1990 compared to 973 in 2003). However, the increase is not evident for all types of sex crimes. The prevalence of exhibitionism remained fairly stable during that period, but the prevalence of indecent assaults increased substantially, as did the prevalence of rape and other sex offenses (e.g., child molestation), though to a lesser degree (see table 2). An explanation for the increase is that sex offenses are reported by victims more

often than before. Further, victims and authorities such as the police and justice personnel may be more inclined to consider certain excessive sexual behavior as punishable (e.g., Bullens 1999).

2. *Male Group Rapists.* During the juvenile years, the majority of delinquent acts are committed in the company of peers (e.g., Warr 2002). To what extent does this apply to sex offenses? On the basis of data from prosecution cases, Looije et al. (2004) reported that one-third of sex crimes committed by juveniles typically take place in a group. A case study of ninety-one group offenders and accomplices who underwent a pretrial psychological assessment showed that groups on average consist of four individuals and were ethnically homogeneous. Ethnic minorities, especially Antilleans, were overrepresented. In the majority of cases, the crime consists of vaginal rape and threats to their victims, even after the offense. According to the psychologist who assessed the juveniles, the offenders were characterized by having an inadequately developed conscience and scored average on many personality characteristics, such as impulsivity and extroversion. They tended to have low intelligence and were easily influenced by others, although the number on this last item is low. There is little evidence of preconceived collective planning of the sex offense. One-third of the groups had a leader who orchestrated the crime. Group members were close to each other and perceived group rape as a form of entertainment. The authors suggest that a group offense is a means to attain status within the group.

A Belgian study sheds further light on group sexual assault and rape (de Wree 2004). Based on file information on about 100 group offenders, the study identified offenders from different ethnic backgrounds: Moroccans and people from the former Congo. In contrast to the Moroccan groups, the juveniles from the Congo are described as "gangs." An explanation for the involvement of ethnic groups in group (sex) offenses can be found in the weak social-economic position of ethnic minorities, inadequate schooling, cultural elements, and the focus on deviant groups of friends. In summary, the Dutch and Belgian studies showed that male group rapists were often from ethnic minorities. Group dynamic processes underlay the perpetration of sex offenses.

3. *Child Molesters and Peer Abusers.* Studies often make a distinction between juvenile child molesters and peer abusers (e.g., van Wijk 1999; Hunter, Hazelwood, and Slesinger 2000; Hunter et al. 2003). Hendriks

and Bijleveld (2004) compared fifty-eight child molesters with fifty-four peer abusers who underwent a pretrial psychological assessment. Child molesters more often came from a Dutch background than from ethnic minorities and were more neurotic and more introverted according to psychological tests. Child molesters, compared with peer abusers, had more often been bullied and had less self-esteem. The victims of child molesters almost always were familiar to the offender. In contrast to the victims of child molesters, the victims of peer abusers often were fellow students or strangers against whom physical violence was used. The majority (63 percent) of peer abusers came from an ethnic minority background and seem to have had fewer personality problems than the child molesters.

4. *Sex-Only and Sex-Plus Offenders.* Offending by some youths is restricted to sexual offenses only ("sex-only offenders"), whereas others commit various kinds of nonsexual offenses as well ("sex-plus offenders"). Van Wijk et al. (2006), using police information from 1996 to 2002 on 4,391 juvenile sex offenders, found that 44 percent of the offenders were sex-only offenders, and the remainder were sex-plus offenders. Compared with the sex-only offenders, the sex-plus offenders tended to begin their criminal careers at a younger age, continued to offend over a longer period of time and at a higher rate, and belonged more to ethnic minorities. For them, the sexual offense constituted a minor proportion of the total number of crimes, which mostly involved property crimes. These juvenile offenders rarely repeated another sexual offense.

5. *Are Sexual Juvenile Offenders Different from Nonsexual Juvenile Offenders?* Three Dutch studies shed light on this important question. A first study compared thirty imprisoned juvenile sexual offenders and 368 nonsexual offenders and showed that the two groups were in many respects similar (van Wijk, Vreugdenhil, and Bullens 2004). However, sexual offenders seemed to be more inhibited than nonsexual offenders and used drugs less often. A higher proportion of sexual offenders compared to the nonsexual offenders were ordered to undergo compulsory treatment.

In a second study, van Wijk et al. (2003) compared 229 juvenile sexual offenders with 139 nonsexual offenders, all of whom had undergone a pretrial physiological assessment. Compared with nonsexual offenders, sexual offenders tended to be younger and were often of Dutch origin. Sexual offenders usually lived with their families and

attended special education because of learning or behavioral problems. The juvenile sex offenders were less impulsive and less extroverted but more neurotic than the nonsexual offenders and were less likely to drop out of school. The two groups were very similar for IQ and self-esteem.

A third study, largely based on the same database, compared fifty-seven peer abusers, fifty-five child molesters with eighty-five violent offenders, and eighty property offenders (van Wijk, van Horn, et al. 2005). Most (76 percent) child molesters had a Dutch rather than a minority background. Compared with the other groups, the child molesters scored higher on neuroticism, had more problems with their peers, and were less likely to have repeated a grade. In contrast, the violent offenders, compared with the other offender groups, had higher scores on impulsivity, extroverted behavior, and an underdeveloped conscience. Violent offenders were the most problematic of the various groups.

These studies found distinctions among child molesters, rapists, violent offenders, and property offenders, which underline that juvenile (sex) offenders constitute a heterogeneous group of offenders. Neglecting this heterogeneity can camouflage possible differences between subtypes of offenders.

6. Girl Sexual Offenders. Among arrested juvenile sexual offenders, only a small number are female (2–3 percent) (van Wijk et al. 2006), about whom little research has been done. Hendriks (2003), in an exploratory study ($N = 10$), summarized the backgrounds and characteristics of young female sexual offenders referred for a psychological assessment as a result of a sexual offense. Half were under age thirteen. Seven had committed the offenses (rape or sexual assault) in the company of others. In almost all cases, the offender and victim knew each other. The girls used much violence during the sexual crime (beating, kicking, and threatening). The young female sexual offenders tended to come from problem families (alcohol abuse, divorce, neglect). They often had a negative self-image, were neurotic, and were easily influenced. According to the forensic psychologist, it was probable that the girls' consciences were underdeveloped. In summary, girls who committed sexual offenses, compared to male juvenile sex offenders, tend to come from problem families and showed poor psychological functioning (Hendriks 2003).

7. Recidivism. Hendriks and Bijleveld (2004) examined the recidi-

vism rate of 114 juvenile sexual offenders (who had received treatment in an enclosed institution) over a median follow-up period of six and a half years. The authors distinguished between opportunistic sex offenders (peer abusers) and obsessive sex offenders (most child abusers). About 60 percent of the total group relapsed to any delinquent offense. Sexual recidivism was found only in the group of obsessive sex offenders (10 percent). Opportunistic offenders relapsed more often to a non-sex offense, including violent offenses, than child molesters. Sexual recidivism was related to a preference for young children, especially girls from outside the family. Child molesters appeared to be a group at risk of sexual recidivism, whereas opportunistic sex offenders displayed a more diverse criminal profile.

8. *Care and Treatment.* A survey among psychologists working in youth detention and treatment centers shows that institutionalized juvenile sex offenders tend to be placed among other nonsexual delinquents (Timmer, Workel, and van Dijck 2001). This study showed that line staff tends to be inadequately specialized in dealing with juvenile sex offenders. One problem is the lack of background information on the juvenile sex offenders at the institution. There are long waiting lists before juvenile sex offenders can be admitted to a treatment institution. The treatment institutions often have separate programs in which attention is paid to sexual problems. Besides individual therapy, the institutions offered cognitive behavior therapy in the form of group sessions. A major problem is the reintegration of juveniles into the community. There is confusion as to which authority is responsible for follow-up care.

C. *Conclusions*

Juvenile sex offenders are a heterogeneous group. The typical juvenile sex offender does not exist, as recent studies have confirmed. We reviewed different subtypes such as girls, group offenders, child molesters, peer abusers, sex-only offenders, and sex-plus offenders. An important question raised is which categorization is the most valuable for judicial and clinical purposes. Empirically based differences in types of offenders need to be linked to the practice in the courts and clinics.

Some recent publications stress that ethnicity in relation to sex offenses should be better studied. That juveniles from ethnic minorities are more often involved in violent sex offenses and less often involved in child molestation requires explanation (van Wijk et al. 2006). It is

unclear whether sex offenses by minority youths stem from cultural misconceptions about Western morals regarding sexuality, result from an antisocial lifestyle, or reflect an aberration in sexual preference.

Because of the scarcity of longitudinal studies in the Netherlands, the development of sexually delinquent behavior is still poorly understood. Barbaree, Marshall, and McCormick's (1998) model could be a good starting point for the testing of developmental trajectories in sexual offending. In a U.S. population longitudinal study, the Pittsburgh Youth Study (van Wijk, Loeber, et al. 2005), it proved possible to examine the development of rapists and compare them to nonsexual offenders. The results show that the two groups do not differ on demographic, family, individual, or peer risk factors, but it is not clear to what extent sexual offending in Pittsburgh is comparable to that in the Netherlands. There is clearly a need to study developmental pathways of juvenile (sexual) delinquency in the Netherlands. An important question is how sexual offenses affect the total development of juveniles. The identification of predictive factors is likely to help in the early detection of sexual offenders and may have a positive effect on interventions.

The important question remains whether it is useful or even necessary to have specific treatment programs for juvenile sex offenders. Aside from differences between sex and nonsex offenders, some juvenile sex offenders are generalist offenders for whom sex offenses are part of a broader criminal career. It is possible that for these youngsters, general interventions aimed at reducing criminal offenses of any type are sufficient, but evidence for this hypothesis is certainly needed. Along this line of reasoning, specific treatment programs for sexual crimes (particularly child molestation and, possibly, rapists and exhibitionists) should be reserved for juvenile sex offenders who have committed a sexual crime because of deviant sexual preference and fantasy.

According to police records, some juvenile sex offenders appear as a sexual first offender. This is interesting because the assumption within developmental criminology is that serious delinquent behavior typically occurs after less serious offenses. A possible explanation is that this information comes from police records and that not all crimes are reported to the police. Sexual offenses often are hidden crimes. Victims do not report sexual attacks for various reasons, including fear of reprisals by the offender, guilt, and feelings of shame. It is also known that a youngster could have committed a sexual offense previously but

that it was never reported to the police (e.g., Ryan 1997). Further investigation is necessary into the dark number concerning sex crimes by juveniles.

That some juvenile sex offenders stop after a first sex offense raises the question whether sufficient sanctions were imposed after the offense or whether the youngster stopped of his own accord. One aspect that must certainly be addressed in future studies concerns the connection between imposed sanctions and the course of the criminal (sexual) career. It is possible that an effective sanction is imposed but that it does not stop nonsexual criminal behavior. Some sex offenders might be termed experimenters, such as youngsters whose behavior crosses the boundary of sexually acceptable behavior, not because of a deviant sexual preference or an antisocial lifestyle but as a result of "experimentation" in the course of trial-and-error learning. Future studies should focus on the connection between forms of interventions, subtypes of juvenile sex offenders, and general and sexual recidivism.

In the light of this, the development of screening and risk-assessment instruments should be revised. The main question is to which care category the juvenile delinquent belongs, especially youngsters who need further special intervention because of their disturbed psychosexual development and their high risk of recidivism. Although this group seems relatively small in number, it is important for them and for society that they receive proper care. Valid and reliable assessment instruments can be of great use here (Bullens et al. 2004; van Wijk, 't Hart, et al. 2005). Besides this, professional care and supervision are important elements that deserve further attention.

III. Ethnicity and Juvenile Delinquency³

Perspectives on relations between ethnicity, immigration, and juvenile delinquency appear to be changing dramatically in the Netherlands, provoking intense discussion in societal debate (e.g., Scheffer 2000). In this debate four hypotheses concerning relations between ethnicity, immigration, and the development of juvenile delinquency may be discerned, with increasing emphasis on culture as a determining factor: (i) juvenile delinquency is not related to ethnicity or immigration; (ii) there is a relation between ethnicity, migration, and juvenile delin-

³ Bram de Orobio de Castro and Marianne Junger provided the material on which this section is based.

quency, because essentially the same criminogenic factors operate for native Dutch and migrant youths but occur more often for immigrants (e.g., low socioeconomic status [SES]); (iii) migration itself invokes additional determinants (e.g., less binding with institutions); and (iv) for certain ethnic groups, additional factors specific to their cultural background operate (e.g., revenge for insults to the family). Unfortunately, societal debate tends to polarize on the first and last hypotheses and rarely seems informed by scientific evidence.

A. Review of Earlier Findings

Non-Western immigrant youths and their parents in the Netherlands have predominantly migrated from Morocco, Turkey, Surinam, and the Netherlands Antilles (CBS 2004). Approximately half of these youths born in the Netherlands have parents who immigrated in the 1960–70s as guest workers. Until the 1990s, a strong belief existed that ethnic groups did not differ with respect to criminal behavior (de Haan and Bovenkerk 1993). Once this belief was questioned, research focused almost exclusively on the question whether prevalence of crime was higher in ethnic groups than in native Dutch youths.⁴ Junger, Wittebrood, and Timman (2001) summarized prevalence information from different sources. Compared with native Dutch youths, prevalence of serious delinquency was found to be higher in specific ethnic groups, for specific types of crimes. Prevalence of violent crime was markedly higher among Moroccan youths and Antillean girls than among other groups, whereas prevalence of self-reported drug-related crime was particularly high among Antilleans. For other kinds of crime and other ethnic groups, differences in prevalence were smaller. Although these group differences have been misinterpreted in many ways (see the paragraph on current trends below), they raise the question how they have come about.

One explanation might be that the same determining factors operate for native Dutch youths and ethnic groups but are more prevalent in the concerning ethnic groups. To test this hypothesis, prospective longitudinal research should regress several indices of delinquency later in life on risk factors at early ages. Unfortunately, no such data existed in the Netherlands. In the absence of longitudinal data, we analyzed a large cross-sectional data set (Junger 1990) concerning aggregated po-

⁴ For brevity, we use the term “native Dutch youths” for all youths born in the Netherlands from parents who were also born in the Netherlands.

lice and self-report data on serious and violent delinquency in youths of native Dutch, Moroccan, Turkish, and Surinamese descent. Delinquency was regressed on established risk factors, including SES, urban/rural place of residence, behavior problems at school, school performance, free time spent outdoors, attitudes toward education and crime, family conflict and communication, and parental monitoring. Overall, these factors were related similarly to delinquency in native Dutch youths and the ethnic groups alike.

To test whether migration and cultural factors were related to delinquency over and above the general factors mentioned above, length of stay in the Netherlands, country of birth, urban/rural descent, traditionalism, Islamic religiousness, and general religiousness were next included in the regression equation. Only religiousness was weakly *negatively* related with delinquency, particularly for Moroccan youths. Interestingly, the same factors related similarly to delinquency in all ethnic groups. Total explained variance was, however, modest (19 percent), suggesting that additional variance might be explained by inclusion of other factors, not necessarily with the same importance for each ethnic group.

We concluded that the limited available data suggest that delinquency in immigrant youths may best be explained by higher prevalence of the same risk factors known from the international literature. Prospective longitudinal studies are needed, including assessment of potential risk factors for the general population, migration factors, and cultural practice factors.

B. Recent Findings

Since 2001 the debate concerning ethnicity and crime appears to have polarized further following ethnic incidents that revealed sharp divisions of opinion between populist native Dutch and immigrant spokesmen. Prevalence findings continue to suggest higher prevalence of specific crimes among specific ethnic groups. Recent prevalence estimates based on offense reports are particularly high for Antillean youths (10.6 percent) and Moroccan youths (4.6 percent) in comparison with native Dutch youths (2.3 percent) (Ministry of Justice 2004). The extremely high prevalence among Antillean youths is primarily due to drug-related (violent) crime.

Interpretation of prevalence findings has been hindered by three misconceptions. First, only a minority of youths in the groups with the

highest prevalence commit such crimes. Therefore, prevalence figures are not appropriate to describe behavior of ethnic groups as a whole. Second, the descriptive findings on group differences have mistakenly been considered indicative of culture-specific causes. Differences in prevalence may, however, result from any of the factors discussed in this essay, whether they be universal, due to migration, or due to culture. Third, each ethnic group has mistakenly been considered to represent a relatively homogeneous group in terms of culture and behavior. However, cultural and behavioral differences within ethnic groups are considerable and appear to be increasing to such an extent that it may be more sensible to study (sub)cultural or individual differences within ethnic groups than to compare between groups (Pels and de Haan 2004). Because of these limitations, further contributions of comparative prevalence studies to our understanding of juvenile delinquency may be limited.

Concerning risk factors for delinquency in relation to ethnicity, considerable progress has been made. Even though no single study prospectively compared the development of delinquency in different cultural groups in the Netherlands, a consistent picture emerges when one compares the above cross-sectional study, other cross-sectional studies of externalizing behavior problems in Moroccan and Turkish youths, and international longitudinal studies of delinquency in different ethnic groups. Stevens (2004) (also see Stevens et al. 2003) conducted a cross-sectional study of externalizing behavior problems in Moroccan, predominantly low-SES, youths. Information concerning child factors, parenting, parental psychopathology, family functioning, and migration factors was obtained. Externalizing behavior problems were related with roughly the same child, parenting, and family factors generally found in Western countries. Child and parental Muslim orientation was weakly related with less externalizing behavior. Self- and parent-perceived discrimination was related with externalizing behavior problems according to parents and self-reports, but not according to teachers. In contrast with the findings on Moroccan youths, a cross-sectional self-report study of Turkish immigrant boys reported less delinquent behavior than among native Dutch boys (Murad et al. 2003). Self-reported externalizing behavior by these children was explained by low parental education and SES. Because of the exclusive reliance on self-reports, it remains unclear whether behavior problems and their determinants are in effect different for Turkish immigrant youths than

for native Dutch and Moroccan youths or whether an informant effect may explain the different findings.

The inclusion of discrimination-related variables in the study of Moroccan boys reflects a growing interest in possible iatrogenic effects of actual or perceived discrimination. It has been suggested that frequent experiences of discrimination may limit opportunities in education and employment and may contribute to hostile attribution tendencies and ultimately to the formation of delinquent peer groups (Vollebergh 2002). Systematic research on these issues has unfortunately not been conducted yet. The findings on self- and parent-perceived discrimination in Moroccan youths discussed above and recent evidence concerning considerable discrimination in job selection⁵ (Kruisbergen and Veld 2002) suggest that this is an increasingly important issue.

Internationally, Loeber and Farrington (2004) compared risk factors for delinquency between ethnic groups and majority population youths in Pittsburgh (United States) and London (United Kingdom). Similar risk factors were found to predict delinquency for Caucasians and African Americans alike. Higher delinquency in African American boys was explained in part by higher incidence of these risk factors. Overall, findings on risk factors for serious delinquency were found to be remarkably similar across countries and ethnic groups, suggesting that the same proximal factors may have roles in the development of delinquency in different ethnic groups.

Much of the recent debate in the Netherlands has concerned culture-specific factors purportedly contributing to juvenile delinquency. Hypotheses have been formulated concerning distrust as a characteristic of Moroccan culture (van Gemert 1998) and attitudes favoring violence in Antillean mothers (van San 1998). Some of these have been presented as established facts in the Dutch education system (CITO 2001) and government reports (Ministry of Justice 2002). However, virtually no sound research has been conducted on the culture-specificity hypotheses. Only anecdotal findings have been obtained with nonrepresentative immigrant samples (van Gemert 1998; van San 1998). Observations in line with the hypotheses under study were then attributed to the ethnic backgrounds of delinquent participants, even

⁵ Eight percent of Dutch small-business employers report not being willing to hire immigrant applicants, even if they cannot find any native Dutch applicants; 16 percent indicate they prefer native Dutch over immigrant applicants with the same qualifications.

though no comparison was made with other ethnic groups or native Dutch youths. Thus hostility and violence-favoring attitudes were attributed to ethnicity, ignoring a large body of research demonstrating that these factors are related to delinquency regardless of ethnicity or migration history (e.g., Huesmann and Guerra 1997; Orobio de Castro et al. 2002).

In the absence of adequate tests of culture-specific hypotheses concerning the development of juvenile delinquency, we discuss recent studies bearing indirectly on this issue. In the cross-sectional studies discussed above, religiousness as a characteristic of Moroccan culture was related to less rather than more behavior problems. Allegedly deviant moral views in ethnic groups were recently examined by Oosterwegel and Vollebergh (2003). Endorsements of a wide range of moral values assessed with questionnaires were studied in relation to self-reported delinquency in several ethnic groups. Ethnic groups did not differ from native Dutch youths in their endorsement of moral values. In sum, the very limited evidence so far provides no support for culture-specific risk factors for delinquency in ethnic groups.

C. Conclusions

Despite far-reaching claims concerning causal effects of immigrant cultures on delinquency, little scientific study of these relations has been conducted. Prevalence of violent crimes is higher among Moroccan youths, and prevalence of drug-related crime is higher among Antillean youths than among other ethnic groups and native Dutch youths, but it remains to a large extent unclear why this is so. Even though much research has focused on prevalence comparisons between ethnic groups, their value seems increasingly limited, since within-group differences in migration history, cultural practices, and social circumstances are large and may increase as individuals from the large migrant groups adapt differently to life in the Netherlands over the prolonged period since their migration in the 1960s (Pels and de Haan 2004).

The limited available evidence suggests that the higher prevalence of the same risk factors found in international research may explain delinquency in immigrant youths from different ethnic groups. There is some evidence for additional factors related to migration, such as rural descent and (experienced) discrimination. Possible contributions of specific cultural factors have scarcely been studied. The few findings

on this issue may best be considered indicative for promising avenues of further research rather than established facts.

Societal debate has concerned relatively vague hypotheses concerning “culture,” “integration,” or “attitude” and a broad notion of “deviant behavior.” Testing such vague hypotheses would tell us little about the causal processes involved, providing few clues for prevention, intervention, or policy making. To better understand the development of delinquent behavior, it may be more fruitful to study individual differences in specific cultural practices by individuals and their relation to delinquency. A positive consequence of this approach would be the need to explain and operationalize the factors presumed to mediate hypothesized relations between ethnicity, migration, and delinquency.

The findings on prevalence demonstrate that the relation between prevalence and ethnicity depends on the kind of behavior examined. Similarly, relations with migration or culture depend on the aspect of migration or culture studied. In this regard “ethnicity” per se may not be a very relevant independent variable. Individual-difference constructs concerning ethnicity and migration with a clear theoretical rationale may be more useful. These may concern migration history (such as age of migration, migration motives, urban/rural descent, and binding with Dutch society at large) and cultural practices variables (such as religious fervor, family hierarchy, and adherence to codes of honor). More explicit hypotheses concerning specific cultural or migration factors, specific delinquent behavior, and the proposed processes linking these are prerequisites for advancement in this field.

IV. Co-occurrence of Serious and Violent Delinquency with Other Problems⁶

Policy makers and treatment staff members of institutions have become more aware of mental health needs of detained boys and girls. This is relevant for forensic diagnostic assessment, the development of specific treatment programs, and decision making by judicial authorities when these juveniles enter the juvenile justice system.

⁶Theo A. H. Doreleijers, Robert Vermeiren, and Evert M. Scholte provided the material on which this section is based.

A. Review of Earlier Findings

We speak of co-occurrence (in medical jargon, comorbidity) of disorders (or problems) when two or more distinct disorders occur at the same time at an observed rate that is higher than can be expected by chance alone. Serious and violent delinquents often have co-occurring problems, such as school dysfunction, substance abuse, attention deficit hyperactivity disorder (ADHD), and internalizing problems (Huizinga and Jacob-Chien 1998; Vermeiren, Jaspers, and Moffitt 2006). Knowledge is needed to answer key questions about the etiology and developmental patterns of delinquent behavior and co-occurring problems for early identification and for targeted treatment. The co-occurrence of delinquent behavior with mental health problems poses major questions about legal culpability and how justice officials should deal with nonlegal but often severely impairing problems that delinquent juveniles present. The association between delinquency and co-occurring problems does not have to be causal, in that one condition may cause one or more other conditions.

The chronology of the various problems is of importance but is often hard to disentangle. For example, it was thought for a long time that drug users needed their delinquent behavior to finance their drugs and that drug use preceded delinquent behavior. However, studies have also shown the reverse, that delinquency often precedes drug abuse (see, e.g., Robins and McEvoy 1990). Such findings are of great relevance for prevention programs for drug users (Hawkins, Catalano, and Miller 1992).

Angold, Costello, and Erkanli (1999) suggested that comorbidity constitutes an “instrument” to better understand the etiology and pathogenesis of complex disorders. Co-occurrence between delinquency and other problem behaviors may have different causes, some of which are artifacts. On the basis of a meta-analysis of large population-based studies, Angold, Costello, and Erkanli explained the condition of *epiphenomenal comorbidity*, when some forms of comorbidity constitute an artifact. For example, they found that depression and anxiety disorder often co-occur, as well as depression and conduct disorder, and anxiety disorder and conduct disorder. However, the latter association is an artifact because anxiety disorder is more likely to be found in an antisocial person who is also suffering from depression.

Some Dutch research on co-occurring problems in delinquent minors has been based on population samples. For example, Ferwerda,

Bottenberg, and Beke (1999*a*, 1999*b*) found that serious delinquents, compared to less serious delinquents, attended school less often and were more often unemployed. Also, they found that more serious delinquents attended lower-level schools than less serious delinquents. Most of the Dutch research on co-occurring problems, however, has focused on studies of specific groups of delinquents, such as juveniles with contacts with the police, juveniles in custody, and juveniles in detention. In Doreleijers et al.'s (2000) study of youths brought before the juvenile court, 48 percent of participants self-reported school problems, whereas their parents reported behavioral problems at school in 23–32 percent of the cases.

Studies on the co-occurrence of delinquency and substance use are hampered. There is no clear understanding among Dutch scholars of what constitutes harmful drug or alcohol use. This has to do with the cultural, moral, and penal opinions about the use of these substances, which have changed much over the past twenty years. Kuipers, Mensink, and de Zwart's (1993) study of school children aged ten and over showed a significant association between cannabis use and criminality. In 1996, the Dutch National Institute for Budget Information study among school children (SCP 1996) reported that as many as 63 percent of juveniles who used soft drugs had committed a delinquent offense, compared to 23 percent of nonusers. Schreuders, Korf, and Poort (1994) investigated the idea that delinquency and cannabis use reciprocally reinforce each other, which can particularly be found among socially deprived groups. Interestingly, gender and nightlife behavior proved to be better predictors of criminality than soft drug use; likewise, nightlife behavior accounted to a greater extent for soft drug use, although criminality also played a role.

Ferwerda, Bottenberg, and Beke (1999*a*, 1999*b*), in a population-based study, reported that nearly 60 percent of serious delinquents had ever used drugs versus 3 percent of nondelinquents. The former were more frequent users and more often users of magic mushrooms and smart drugs. Eighty-five percent of serious delinquents consumed alcohol versus more than 50 percent of nondelinquent youths. The former group more often used throughout the whole week, whereas the latter group consumed alcohol predominantly at parties or on the weekend. The seriously delinquent group had a much higher alcohol use: fifteen glasses per night out compared to five and a half glasses for the nondelinquent group. Likewise, the serious delinquents

consumed more “cocktails” of different combinations of alcohol and drugs.

The studies discussed so far did not report on ADHD or other externalizing behavior. Doreleijers et al. (2000), depending on the instrument used, reported large differences in the measurement of ADHD in delinquents brought before court. For example, the Youth Self-Report (YSR) yielded attention and hyperactivity problems in 6 percent of the group of adjudicated youths, whereas interviews (of juveniles and their parents) identified 28–30 percent of youths with ADHD. When DSM III-R criteria were used, 14 percent of the juveniles were diagnosed with ADHD. A Belgian study largely replicated these results (18 percent ADHD; Vermeiren, de Clippele, and Deboutte 2000). Subsequent analyses of Dutch data collected by Doreleijers showed that when the group of criminal minors was split into younger (twelve to fourteen) and older (fifteen to seventeen) subgroups, a diagnosis of ADHD could be made three times more often in the younger than in the older subgroup (Moser and Doreleijers 1996). Moreover, the “total” rate of comorbidity—in addition to ADHD itself—turned out to be greater in the juveniles with ADHD than in those without.

In the same group, Doreleijers et al. (2000) found that about 30 percent showed internalizing problems (on the basis of interviews with the juveniles, the YSR, and interviews with their parents and the Child Behavior Checklist). In addition, a strikingly large number of physical complaints and sleep problems were found. A DSM III-R diagnosis of depression/dysthymia could be made in 11 percent of the juveniles. In the earlier-mentioned Belgian study (Vermeiren, de Clippele, and Deboutte 2000), 15 percent were diagnosed with depression and 14 percent with posttraumatic stress disorder (a classification that could not be made in the Dutch study because no suitable instrument was used). In Doreleijers’ Dutch sample, an association was reported between the degree of comorbidity, the level of functioning, and the total amount of stress experienced. However, although comorbidity may be considered to relate to both delinquent behavior and help-seeking behavior, there was no association between the degree of comorbidity and the level of functioning or the severity of the delinquent behavior.

B. Recent Findings

Two Dutch studies using systematic assessments in juvenile justice institutions in the Netherlands have provided new insights into the co-occurrence of delinquency and mental health problems. The first study investigated a representative sample of twelve- to eighteen-year-old adjudicated delinquent boys ($N = 208$) detained in juvenile justice institutions (Vreugdenhil, Doreleijers, et al. 2004) who were incarcerated either without special treatment ($N = 114$; called the detention group) or with compulsory treatment ($N = 90$); 62 percent and 86 percent of the detention group and the treatment group, respectively, had been referred because of a violent index offense. The child version of the diagnostic interview for children was used (Diagnostic Interview Schedule for Children [DISC-C]; Shaffer et al. 2000) to determine the prevalence of psychiatric disorders. Ninety percent of all participants met criteria for any psychiatric disorder, 75 percent for any disruptive behavior disorder, and 67 percent for at least two disorders. These high comorbidity rates indicate the need for professional mental health services for these youths. All boys showed serious functional impairment (Children's Global Assessment Scale score below 61). However, Dutch juvenile justice institutions were also shown to lack mental health resources to address delinquents' mental health problems.

The second study focused on 218 twelve- to eighteen-year old detained girls, of whom 92 percent had a civil court order of child protection (mainly because of status offenses); only 8 percent were placed under penal sanctions, although a majority had committed delinquent behavior (Hamerlynck et al. 2005). Assessments using the Kiddie Schedule for Affective Disorders—Present and Lifetime version (Kaufman et al. 1997) found that a large proportion of girls had one or more externalizing disorders or substance use disorders, whereas self-report instruments showed high levels of internalizing problems, specifically, depression and posttraumatic stress. From the aggression items from the conduct disorder (CD) diagnosis (violent theft, use of a weapon, battery, sexual violence, and maltreatment of animals) as a criterion, 59 percent of the girls showed at least one of these behaviors, whereas almost 20 percent displayed two or more. Interestingly, the study also reported an association between severity of the aggressive behavior and the prevalence of externalizing and internalizing disorders.

With regard to substance use disorders (SUD), Vreugdenhil, van den Brink, et al. (2003) found a six-month prevalence of any SUD of 55

percent and a lifetime prevalence for polysubstance use of 83 percent (defined as the use of at least two different substances, except tobacco). The presence of an SUD was associated with a significantly higher probability of the presence of another SUD. No relationship between use of alcohol and drugs and violence and aggression was found, however, presumably because the detained population represents an extremely disordered group, which hampers the likelihood of differentiating according to this factor. Hamerlynck et al. (2005) reported drug abuse and dependence in 52 percent and 30 percent of the girls, respectively. Hard drug abuse was positively related to levels of aggression, with highest rates in the most aggressive group.

Vreugdenhil, Doreleijers, et al. (2004) found ADHD in 8 percent of the boys, which may be an underestimate because external (parent, teacher) information was not available. In contrast, 21 percent of the girls in the Hamerlynck et al. (2005) study qualified for ADHD. The results for girls and boys may not be comparable because the instruments used in the two studies were different: diagnoses for the boys were made with a fully structured psychiatric interview, whereas a semi-structured interview was used in the girls' study (where professionals are allowed to consider their own observations as well). Overall, the issue of ADHD in delinquents needs further consideration since evidence-based treatments for these disorders are available at present.

With regard to internalizing disorders, Vreugdenhil, van den Brink, et al. (2003) found an anxiety disorder in 9 percent of the boys and a depressive disorder in 6 percent. Thirty-four percent reported one or more psychotic symptoms, although it is unclear what the meaning of this finding is. Because paranoid thinking was the most prevalent symptom, the presence of a personality disorder rather than a psychotic disorder may be present in these youths. Alternatively, such symptoms may be the result of substance use or a history of trauma.

Hamerlynck et al. (2005) found (on the basis of self-report questionnaires) a clinical indication for depression in 33 percent of the girls; 22 percent were suspected to have a posttraumatic stress disorder and 6 percent a dissociative disorder. Forty-seven percent reported suicidal symptomatology. On average, the lives of the girls had been marked by almost five traumatic experiences, and again, an association was found between the number of experienced traumas and the severity of aggression.

C. Conclusions

Recent Dutch studies on detained young delinquents confirm and extend the results of the prevalence studies carried out over the last decades. Findings suggest that the severity of delinquency in young offenders is positively associated with the presence of mental health disorders, although findings are not consistent at this point.

Several key research questions remain unanswered that are relevant for our understanding of the nature and clinical implications of co-occurring problems, their assessment, and interventions. One question concerns the direction of the relationship between crime and co-occurring problems such as substance abuse and school problems. Such knowledge may be important for the design of prevention programs aimed at avoiding later delinquency.

Furthermore, there are no known studies—and this is a serious shortcoming—on vulnerability, in the sense of a mental handicap, psychiatric disorders, or traumatizing factors, and substance abuse and delinquency, from either a sociological/criminological or a behavioral scientific/medical point of view. Which co-occurring problems are etiologically significant in the development of delinquency or play a mediating role (see also Loeber 2004)?

Well-designed population-based and clinical follow-up studies are needed in order to gain better insight into the developmental psychopathology of delinquent behavior in relation to other impairing problems. Outcome and efficacy studies should provide insight into the need for services, which are currently poorly provided in Dutch correctional facilities. The core task of these facilities is still to keep society safe and to apply judicial sanctions, thereby largely neglecting the long-term perspective, namely intervening so that future harm can be avoided.

Better care is needed to reduce mental health problems found at high rates in forensic populations. Because such care should not be a focus of justice authorities, this task needs to be transferred to mental health agencies. Fortunately, this view is gaining ground in the Netherlands: a second youth forensic residential clinic opened last year, as well as several youth forensic day treatment facilities. Ambulatory settings are now using functional family therapy and multisystemic therapy, and these interventions are being evaluated for their effectiveness. However, better forensic care is still needed in the youth detention

centers since the majority of detainees do not receive adequate treatment for their mental health needs.

V. Prevalence and Development of Antisocial Behavior⁷

Because of the high individual, familial, and societal burden associated with antisocial behaviors in young people, it is important to obtain information on the occurrence and development of these behaviors and on factors influencing their prevalence. Cultures may differ in various ways from each other. Cross-cultural variations in the occurrence and development of antisocial behaviors in youngsters may aid in understanding which factors are involved in the etiology of these behaviors.

It is also important to study antisocial behaviors within a developmental context, because these behaviors do not arise anew but are assumed to be the result of the development of such behaviors in some ordered fashion. The development of antisocial behaviors is influenced by genetic factors or social learning or is the culmination of neurological, psychological, or social damage to the child. Understanding the course of such development can provide better insight into factors that are responsible for the emergence of violent and serious forms of delinquency in general, and this may aid in developing effective prevention or intervention strategies. Large-scale, prospective, longitudinal studies of general population samples are especially useful types of study for untangling the roots and consequences of antisocial behaviors across the life span (Rutter, Giller, and Hagell 1998).

A. Review of Earlier Findings

A number of important studies shed light on the prevalence and development of antisocial behavior.

1. *Population Prevalence of DSM Antisocial Disorders.* We used the DISC (Shaffer et al. 1993) to assess DSM-III-R diagnoses of the most common psychiatric conditions among Dutch adolescents aged thirteen to eighteen (Verhulst, van der Ende, et al. 1997). The prevalence of conduct disorder (5.6 percent), oppositional defiant disorder (0.7 percent), ADHD (1.3 percent), and SUD (3.3 percent) were in the same range as is found for other Western societies (e.g., Earls and

⁷ Frank C. Verhulst, Andrea G. Donker, and Marijke Hofstra provided the material on which this section is based.

Mezzacappa 2002). Higher prevalence of antisocial disorders in males than females is a ubiquitous finding.

2. *Development of Antisocial Behaviors: The Zuid-Holland Prospective Longitudinal Study.* Few Dutch studies have investigated the longitudinal course of antisocial behaviors from childhood into adulthood. To determine the development of psychopathology from childhood or adolescence into adulthood, we conducted a fourteen-year prospective longitudinal study in four- to sixteen-year-olds from the general population. The sample was assessed at two-year intervals over an eight-year period, and again six years later, fourteen years after the first assessment (Hofstra, van der Ende, and Verhulst 2000, 2001, 2002a, 2002b). We are currently conducting a twenty-three-year follow-up of this sample, including the offspring of the original participants. Problem behavior was assessed with the Child Behavior Checklist (CBCL; Achenbach 1991a) and related instruments for assessing psychopathology in adulthood. At the last assessment, subjects were interviewed using a standardized psychiatric interview generating DSM-IV diagnoses. Results showed considerable continuity of antisocial behaviors across the fourteen-year time span from ages four through sixteen to eighteen through thirty. For example, between 37 and 52 percent of the individuals who could initially be regarded as deviant could still be regarded as deviant fourteen years later. A remarkable finding was that the continuity of antisocial behaviors *was no less* for females than for males. A somewhat different picture emerged when we looked at the prediction of DSM-IV-defined antisocial personality disorder in young adulthood from CBCL scores obtained in childhood or adolescence. The CBCL scales predicted later antisocial personality disorder in males but not in females, perhaps because the prevalence of DSM-IV antisocial personality disorder in females was very low. However, the diagnostic criteria for antisocial personality disorder reflect antisocial behavior that is more typical for males than for females. If the criteria for antisocial personality disorder had been more representative of female antisocial behavior, then the prevalence, and possibly also the prediction of antisocial behavior in adult women from earlier problems, would have been different.

The findings of the Zuid-Holland study corresponded with those reviewed by Loeber and Farrington (1998). Antisocial behavior in childhood or adolescence is a predictor of antisocial behavior in adulthood, even across the long follow-up interval of fourteen years as in

our study. The combination of covert antisocial behavior and affective problems in childhood/adolescence was found to be an especially potent predictor of adult antisocial behavior.

We also reported unexpected findings. Despite its stability over time, overt aggressive behavior was only weakly associated with later antisocial behaviors after correction for the influence of other problems. The same was true for attention problems, which did not independently predict later antisocial behaviors.

B. Recent Findings

Research on these subjects has expanded. Analyses increasingly take account of cross-cultural comparisons and findings from other countries.

1. *Cross-Cultural Comparisons of Self-Reported Problems.* To test the cross-cultural generalizability of antisocial behaviors in a more rigorous way than we did earlier, we compared YSRs (Achenbach 1991*b*) for 7,137 adolescents aged eleven through eighteen from the Netherlands with general population samples from Australia, China, Israel, Jamaica, Turkey, and the United States (Verhulst et al. 2003). The YSR, which is the self-report version of the CBCL, yields scores for the two broadband scales designated as internalizing and externalizing and for eight specific syndrome scales.

Deviations from the overall mean score across the seven cultures for the externalizing scale were smaller than deviations from the overall mean for the internalizing scale. All effects of culture for the eight YSR syndrome scales, including the scales designated as attention problems, delinquent behavior, and aggressive behavior, were small according to Cohen's (1988) criteria, ranging from 3 percent to 5 percent. The effect size of culture yielded the smallest cross-cultural variation for the aggressive behavior scale. For the externalizing and delinquent behavior scales, boys scored higher than girls across the various cultures.

On the basis of these analyses, we concluded that adolescents from different cultures responded in fairly similar ways to the problem items of the YSR, despite large variations in language, customs, religion, socioeconomic circumstances, and health care facilities. This was even more the case for antisocial behaviors than for internalizing behaviors, for which slightly greater cross-cultural variation was found. Because cultural differences associated with ethnic, linguistic, religious, and re-

gional variations within countries may pose challenges for evaluating problem behaviors in youths living in multiethnic urban societies, cross-cultural comparisons of problem behaviors may be important for determining which youths need professional help and which do not.

2. *Developmental Trajectories of Antisocial Behaviors.* To test major developmental pathways models as described by Loeber et al. (1993) and Moffitt (1993), group-based developmental trajectories of CBCL problem scores were computed using a semiparametric mixture model-fitting procedure as proposed by Nagin (1999) (Bongers et al. 2004). Analyses were performed on the four measurements with two-year intervals across an eight-year period in the Zuid-Holland longitudinal sample. Trajectories covered developmental changes from ages four to eighteen. Associations were computed between developmental trajectories and psychiatric or criminal outcomes assessed at fourteen years from the initial assessment. To organize the CBCL externalizing items, the following four clusters of behaviors as proposed by Frick et al. (1993) were used: aggression, opposition, property violations, and status violations. The trajectories for the scales designated as aggression, opposition, and property violations showed an overall decrease in severity from childhood to adolescence, whereas status violations showed a developmental increase from childhood to adolescence. Within each of the four behavioral problem clusters, three to six different group-based developmental pathways could be determined, and most of these different trajectories followed the shape of the average trajectories at various levels of severity. Within each cluster the largest group of individuals followed a developmental trajectory at a low level, indicating that most individuals showed very few externalizing problems during their development from four to eighteen years as reported by their parents.

Because much less is known about the development of antisocial behaviors in girls than in boys, it was important to find that more boys than girls could be assigned to the higher (more problematic) trajectories, even though the shapes of the trajectories did not differ for boys versus girls.

The high-level trajectories indicated that the most troublesome children tended to be the most troublesome adolescents. Individuals who persistently showed high levels of antisocial behaviors from childhood into young adulthood followed a developmental pattern that was designated as life course persistent by Moffitt (1993). However, we could

not identify a developmental pattern of antisocial behaviors that is called adolescence-limited by Moffitt. Within the clusters opposition and status violations we identified a group with increasingly high levels in adolescence, but the severity of these problems did not level off until the upper limit of eighteen years in this study.

Contrary to studies indicating that oppositional behaviors become less common after the transition from childhood to adolescence, we found that behaviors represented by the opposition cluster remained more common than those represented by the other clusters. Of course, it should be stressed that this study used parental information, and it may well be that parents were largely unaware of externalizing behaviors exhibited by their adolescent sons or daughters.

Individuals in the most problematic trajectories run the highest risks for a variety of psychiatric disorders, including antisocial personality disorder and mood disorders. However, it was a surprise to find that, despite the recent emphasis on physically aggressive behavior as a precursor of later violent delinquency, deviant trajectories of physically aggressive behaviors were the least problematic. Only in combination with deviant trajectories of opposition or status violations did they show adverse outcomes.

C. Conclusions

Recent developments showed a move toward more culture-sensitive evaluation of problem behavior in youths. This is important in contemporary societies, such as the Netherlands, containing many immigrants and refugees. When evaluating children of different cultures, mental health professionals must determine whether problems merely reflect cultural differences or whether they reflect needs for professional help. To help these children, we need cross-culturally robust instruments for identifying variations in behavioral and emotional problems that can be applied by diverse professionals under diverse conditions. A number of studies have contributed to the development of such robust instruments (Ivanova et al. nd; Rescorla et al. nd; Stevens 2004). However, much more work needs to be done.

Another topic in need of cross-cultural comparison is the documentation of secular changes in antisocial behavior over time. An earlier study on the ten-year secular change in problems in children and adolescents from the Dutch general population, using similar methodologies to assess problems, failed to show a dramatic increase in prob-

lems from 1983 to 1993 (Verhulst, van der Ende, and Rietbergen 1997). We are analyzing the data from a new population survey that will enable us to look at twenty-year secular changes in problems as reported by parents, teachers, and youths themselves and at secular changes in the use of mental health services and factors associated with mental health and with the use of mental health services. The first results showed that there was a slight increase in problems between 1983 and 2003, but that this increase could be attributed mostly to an increase in internalizing problems rather than externalizing problems. An exception was a slight increase (accounting for less than 1 percent of the variance) in parent- and teacher-reported oppositional behaviors. Though these types of studies are limited by their nonexperimental designs, which hamper any causal explanations of possible effects, they provide clues about possible effects of economical, political, social, or familial changes over time, especially if such studies can be replicated cross-culturally.

Progress has also been made in the methodology of identifying individuals who show developmental trajectories that deviate from pathways followed by normally developing children. Longitudinal screening, that is, the identification of individuals who are at risk for showing long-lasting problem behaviors based on multiple measurements, may be a more accurate approach than the identification of at-risk children through cross-sectional screening. It is important to gain more experience in the identification of children who are most at risk for serious deviant development.

To understand better the complex interplay between nature and nurture in the development of antisocial behaviors, future studies should consider well-measured risk environments in genetic-sensitive designs. Future studies should also consider both age differences in causal processes and gender differences in effects. Such an approach calls for research in which (molecular) genetic and psychosocial research is well integrated in prospective epidemiological strategies. A few years ago a unique study was launched in the city of Rotterdam in which 10,000 pregnant women and their newborn babies were followed over time. In 2005, the last pregnant woman was included. This multidisciplinary study with a heavy behavioral component will enable us to study the interplay between various biological risk factors, including genetic risk, and environmental factors in the development and course of problem behaviors (Hofman et al. 2004). A related study among a cohort of

initially ten-year-olds, TRAILS, is being carried out in the northern provinces in the Netherlands. This study is more exclusively focused on the development of problem behaviors, including substance use and antisocial behaviors (De Winter et al. 2005). It will be possible to investigate mechanisms responsible for the development of antisocial behaviors, especially aimed at identifying risk factors, either biological risks or risks in the environment.

VI. Family Factors⁸

In the last few decades, juvenile violence in the Netherlands has increased. In company with this trend, significant research has gone into identifying the factors responsible for the development and maintenance of youths' violent antisocial behavior. There is general agreement that the development of violent antisocial behavior should be conceived as a result of a complex interplay of multiple factors. These factors include individual characteristics, such as impaired social-cognitive functioning (Orobio de Castro et al. 2002), neurobiological factors, co-occurrence of psychiatric disorders, and early aggressive behavior. Individual factors, however, interact with and are to a great degree influenced by the social environment in which an individual functions. Understanding the impact of the social environment is a critical step needed to fortify prevention and intervention efforts aimed at reducing adolescent violent behavior. Although the social environment encompasses many different contexts (such as neighborhood, school, or larger microsystems: political factors, media, poverty, and discrimination), empirical research consistently shows that social factors most directly linked to an individual's risk for violence are close interpersonal relationships: youth peer group factors (Loeber et al. 2001, chaps. 8, 9) and families.

A. Review of Earlier Findings

In our initial review of the literature on relationships between family factors and adolescent antisocial behavior, we reported on the results of two Dutch studies. Their aims were to specify more precisely how family factors relate to adolescent antisocial behavior by defining different levels of family functioning, by using a comprehensive, multi-

⁸ Maja Deković, Jan M. A. M. Janssens, and Nicole M. C. van As provided the material on which this section is based.

agent assessment of these factors, and by examining their combined and unique predictive power. Both studies included large community samples of both boys and girls between twelve and twenty-one years old and their families. Family factors examined in these studies were ordered according to the level of proximity to the child's everyday experience into *proximal* (parental child-rearing behaviors: responsiveness, involvement, punishment, monitoring, consistency, and the quality of the parent-adolescent relationship: attachment, rejection, conflict, and communication), *distal* (dispositional characteristics of parents: depression and parental feelings of competence regarding child rearing), *contextual* (the quality of other relations within the family: marital satisfaction and family cohesion), and *global* factors (e.g., family SES and parental educational level). Four major findings emerged.

First, most of the assessed parental child-rearing behaviors (proximal factors) differentiate between violent and nonviolent youths. The way in which parents exert control seems especially to differ across the two groups. Second, the negative quality of the parent-adolescent relationship (another proximal factor) emerged as a strong risk factor for involvement in violence. Both mothers' and fathers' relationships with adolescents in the violent group seem to be characterized by a lack of closeness, intimacy, acceptance, and understanding. Third, significant differences emerged also regarding distal factors (parental characteristics). Both mothers and fathers of violent adolescents report more depressive feelings and less confidence in their own competence regarding child rearing than parents of nonviolent adolescents. Fourth, in comparison with proximal factors and distal factors, contextual factors (family characteristics) and global factors (SES and education) appear to differentiate less well between the two groups. Consistent with the social interactional perspective, the more distant the factor is to the adolescent's everyday interaction, the less important it seems to be.

Consistently with findings from many other studies (e.g., Reese et al. 2000), we found that family factors associated with risk for violence include harsh discipline, poor communication, lack of supervision and monitoring, lack of paternal support, parental pathology, and incompetence. These findings highlight the importance of family factors, especially those related to the parent-adolescent interaction, as an explanation of adolescent involvement in violent antisocial behavior. Moreover, it appears that families also affect the peer-related risk fac-

tors. Involvement with deviant peers, one of the most important risk factors for antisocial behavior, is closely related to problematic family functioning (Hill 2002).

B. Recent Findings

There are several noticeable trends in Dutch studies on the role of the family in the development of problem behavior (many of the cited studies did not focus specifically on violent behaviors, but use terms such as delinquency, antisocial behavior, or externalizing problems). First, recognition of the limitation of cross-sectional studies led to an increase in the number of longitudinal studies that test mutual influences of family functioning and antisocial behavior over time (see, e.g., Delsing 2004; Reitz 2004). Moreover, availability of more than two measurement points and the use of sophisticated analytic techniques (such as latent curve analyses) made it possible to examine factors that predict not only the occurrence but also the course of development of problem behavior (Deković, Buist, and Reitz 2004).

Second, in recent years, there has been increasing attention to ethnic diversity in the community, and studies are forthcoming that examine families belonging to different ethnic minority groups. The most important question in these studies is whether the same model of families' influences is applicable to different ethnic groups. Results to date support cross-ethnic generalizability of findings but also suggest some ethnic differences. In both Moroccan (Stevens 2004) and Turkish (Murad et al. 2003) groups, the same family factors predicted adolescent externalizing problems as in Dutch samples. But the strength of associations between family factors and antisocial behavior was stronger and the percentage of explained variance in antisocial behavior was larger in the Dutch sample than in the ethnic minority samples (Deković, Wissink, and Meijer 2004). In other words, models of family influences on adolescent antisocial behavior fit most adequately the data of Dutch adolescents. This is not entirely surprising given that this model was developed and tested in samples with similar characteristics: white, Western adolescents from a dominant culture.

Third, there is increasing recognition that family is a complex and multifaceted phenomenon and that if we are to gain a better understanding of the family as a context of development, we need to conceptualize it in a more complex fashion than has been common practice. Although there has been much progress recently (Delsing 2004;

Deković and Buist 2005), there is still a remarkable lack of integration regarding the links of different levels of family functioning with child outcomes.

Finally, the field seems to be moving beyond identifying the list of risk factors, to the search for mediating mechanisms that can explain the links between risk factors and negative outcomes. For example, Deković, Janssens, and van As (2003) showed that the global impact of contextual and distal factors on antisocial behavior is accounted for by the ways in which these factors shape the more proximal experience.

1. *Family-Based Intervention.* In our summary of research to 2001 (Deković, Janssens, and van As 2001), we showed that there is no shortage of family-based interventions in the Netherlands, although many were developed with the general aim of supporting parents (mostly parents of younger children) and preventing child problem behavior rather than reducing adolescent violent behavior. One conclusion was that there is a clear need, in addition to early intervention programs, for theory-based, “developmentally sensitive” interventions that are designed specially for troubled adolescents and their families. A second, more important and worrisome conclusion was that little information is available about the effectiveness of existing interventions in the Netherlands.

Unfortunately, the situation has not been changed. In 2003 Verdurmen et al. published an overview of Dutch studies that examined the effectiveness of interventions. Although they also found an abundance of different interventions, they were able to identify only twelve evaluations that examined interventions aimed at reducing youth delinquency. Moreover, because of serious methodological shortcomings, most of the studies do not allow for reliable and valid conclusions. Surprisingly, despite a body of evidence that social environment clearly has an impact on adolescent delinquent behavior, the majority of evaluated interventions focused only on target adolescents, and only two interventions were designed to affect social context (school environment). None of the interventions included a family component, despite general conclusions from several reviews (Reese et al. 2000; Perkins-Dock 2001) and recent meta-analytic studies (Dowden and Andrews 2003; Farrington and Welsh 2003) that family-based interventions are effective in reducing persistent and violent antisocial adolescent behavior and preventing recidivism. These reviews showed that effective

family programs focus on two aspects of family functioning that, in our studies also, appeared to be the most important predictors of adolescent violent behaviors: parental behavior (enhancing parental monitoring through behavioral parent training) and the quality of the parent-adolescent relationship (improving communication within the family through family therapy).

Veerman, Janssens, and Delicat (2004) analyzed ninety-two Dutch family preservation programs aimed at preventing or diminishing children's behavioral problems. Only seventeen of these programs have been evaluated by research designs with valid and reliable psychometric pre- and posttests. None of the programs was compared to a control group. The designs used were pre-experimental. On the basis of pre- and posttest scores, Veerman et al. found positive effect sizes of 0.52 on children's externalizing behavior and 0.55 on parental stress. They argued that more internally valid designs are necessary to assess effects of Dutch prevention and intervention programs aimed at preventing youth delinquency and juvenile recidivism.

In the last two years, however, there have been some positive developments. The need to work in an evidence-based manner has been increasingly emphasized by state health and criminal justice agencies (Ministry of Justice 2003). In 2005 a best-practices initiative, focusing on identifying the most promising approaches to prevention of youth delinquency and violence, was launched. In addition, several new family-based intervention programs have been implemented, such as multisystemic therapy and functional family therapy. Both interventions have been evaluated in randomized controlled trials and show promising results in reducing adolescent antisocial behavior and preventing recidivism (Alexander et al. 1998; Curtis, Ronan, and Borduin 2004). These interventions, however, have been developed and tested in the United States. Owing to the differences between the two countries in social and political climate, organization of mental health services, availability of different treatments, and types of clients, Dutch studies are needed to examine whether the same favorable results will be obtained here (Deković, Prins, and Laan 2004).

C. Conclusions

Recent findings confirmed the importance of family factors, especially those related to the parent-adolescent interaction, for development of violent antisocial behavior, both concurrently and longitudinally.

nally. Moreover, these findings seem to hold for different ethnic groups. Studies on families have a potential to inform us about important conceptual, applied, and policy issues regarding youth violence. Even if the family is not the only contributor to the development of antisocial behavior, it is certainly the central vehicle by which change can be made to turn development in a more positive direction.

Research in the Netherlands is steadily moving toward more complex comprehensive assessments of different levels of family, better designs, and more attention to diversity. But there is still much to be done. More research is needed with families who are most at risk (those living in poverty and in bad neighborhoods, with multiple risks present, with children who show aggressive behavior at an early age). Moreover, these families should be followed longitudinally over a long period. This is an extremely difficult kind of research: such families do not normally become subjects in large surveys because they are hard to recruit and hard to keep. In spite of these difficulties, such studies have been conducted (see, e.g., Thornberry and Krohn 2003). Given the degree of problems and the negative consequences for both individuals and society, such studies should be given the highest priority, and more effort (and money) should be put into such investigations.

Intervention research in the Netherlands is lagging behind. Non-evaluated parent education and family support programs continue to dominate the field. In the absence of any form of accountability or quality control to ensure that evidence-based family interventions are promoted, a diverse range of untested, perhaps even harmful, interventions are offered to the public. There is a great need for methodologically sound evaluation studies. Such studies provide not only valuable information for the clinical practice but also ways to test models devised from fundamental research in a full social context. The experimental nature of interventions yields opportunities for causal inference not available in correlational field investigations. But in order to fulfill this role, evaluation studies should be conducted rigorously, including a sound treatment rationale, clear problem specification, appropriate controls, adequate sample size and power, randomization of groups, checks for treatment integrity, multiple outcome measures, and follow-up assessments (Farrington 2003). In addition, more efforts should be put into revealing the “black box” of the intervention: the processes through which the intervention influences ultimate outcomes.

VII. Screening of Serious and Violent Juvenile Offenders⁹
 Increases in violent offending behavior among youngsters in the Netherlands have given impetus to the idea of early identification and intervention. If serious and violent offenders can be identified at an early stage, corrective measures could be taken to prevent the further development of serious and violent offending behavior in juveniles. These early interventions, when successfully applied, would make society safer. They also would limit the need to build expensive corrective institutions for juvenile offenders. The individual youngsters would also benefit because successful intervention would prevent their exclusion from society.

However, identification of (potential) serious and violent offenders is not an easy task. The topic is surrounded by many questions. For example, can screening indeed identify potential serious and violent juvenile offenders? What factors must be included? Where must screening take place and by whom? What devices must be used?

A. Review of Earlier Findings

Our initial review (Scholte and Doreleijers 2001) focused on development of screening devices and screening strategies to identify youths at risk for serious and violent offending. Violent offenses constitute a subgroup of serious offenses, but serious offenses also include nonviolent offenses, such as theft, car theft, burglary, extortion, arson, and drug trading. However, because of different penal laws, definitions vary considerably between countries (Le Blanc 1998). Differences also exist in definitions used by different researchers. Some Dutch researchers have proposed limiting the definition of serious offending behavior only to index offenses that cause physical harm to others (Philipse et al. 2000). We used the Loeber et al. definition, which also includes property-related serious index offenses such as burglary, extortion, and drug trading one or more times (Loeber, Farrington, and Waschbusch 1998; Loeber, Slot, and Sergeant 2001).

Screening can further serve different purposes. Policy makers can aim to screen for serious and violent offending behavior to learn whether offending in the nonreferred population has increased or improved. In this case, the screening device is straightforward and simply requires using a clear definition and counting the number of cases that

⁹ Evert Scholte and Theo A. H. Doreleijers provided the material on which this section is based.

fit the definition. However, with prevention in mind, policy makers and mental health professionals need to be able to identify youngsters “at risk” for future serious and violent offending behavior. This complicates matters considerably since the screening must take place before the offending behavior has occurred. This calls for a predictive screening device.

In the past, predictive screening devices were often based on behavioral or psychological classifications of offenders. Most current screening devices rely on a risk assessment of the multiple behavioral, psychological, and social risk factors associated with the development of serious and violent offending behavior. Over recent decades, risk- and needs-assessment instruments have been developed for dismissal, detention, probation, parole, and placement decisions. Although these instruments often display a sound face validity, their reliability and empirical validity are often controversial (Wiebush et al. 1995). Screening devices to identify (potential) serious and violent juvenile offenders must, however, be accurate and correctly identify youngsters at risk, since intervening in cases not really at risk directs resources to the wrong individuals and implies an unjustifiable stigmatization of youngsters.

Good screening instruments need to be both reliable and valid (Corcoran and Fisher 2000). Reliability refers to the consistency with which an instrument measures the same construct every time it is administered across persons, situations, and time. Validity pertains to whether an instrument accurately assesses the phenomenon it was designed to assess. Predictive validity is particularly important for instruments that screen for potential serious and violent juvenile offenders, since these instruments must be able to accurately predict the target offending behavior in the future. Predictive validity is, however, often hard to achieve, since longitudinal empirical research is needed to establish this type of validity. In the case of serious and violent offending behavior, predictive validity is even more difficult to establish, since the development of this type of problem behavior is often moderated by the interventions of the police, the justice system, and the welfare system.

The Committee of Test Affairs assesses whether the psychometric conditions of reliability and validity are sufficiently met (Evers, van Vliet-Mulder, and Groot 2000). Norms must be provided to identify the extent to which assessed individual juveniles diverge from the normal Dutch youth population. These requirements correspond with the

quality standards set in the United States for screening devices assessing risks and needs (American Educational Research Association, American Psychological Association, and National Council on Measurement in Education 1999; Myers and Winters 2002).

Screening for potential serious and violent juvenile offenders at the level of general youth populations is not feasible for statistical and practical reasons. The low estimated base rate of about 4 percent of youngsters at risk for serious and violent offending in the general Dutch youth population (Eggen et al. 2005) would result in too many false identifications. Screening general populations of millions of youngsters would also result in unmanageable costs. Screening with regard to prevention can best be done at places in which children and families come into contact with officials monitoring the (mal)adaptive development of children, for example, at general health centers, at schools, and during leisure time projects. Screening with regard to correction can be done at places in which youngsters come into contact with juvenile justice authorities, at the boards for the protection of children, and in organizations for the execution of court orders, juvenile detention institutions, and resettlement organizations.

In the distant past the various mental health and juvenile justice organizations used screening procedures of their own. These instruments often displayed sound face validity but were not psychometrically underpinned. However, in the last decade a few new screening devices have been developed and empirically validated. These instruments are based on the premise that serious and violent offending is usually not caused by one determining factor, but results from complex processes in which biological and psychological vulnerabilities in children and juveniles interact with multiple factors in the daily living environment provided by parents, teachers, friends, caretakers, and other educators (Loeber, Farrington, and Waschbusch 1998; Zuckerman 2002). In these interactions, protective factors (e.g., appropriate medication, stable self-esteem, firm but sensitive parenting, supportive teaching, and prosocial peers) can support the adaptive development of children, whereas risk factors (e.g., drug abuse, psychopathic traits, child abuse and neglect, being a school dropout, and deviant peers) increase the chance that the development will take a maladaptive course. To offer youngsters appropriate help, justice and mental health professionals use these instruments to identify the risk and protected factors involved, so that interventions can be appropriately targeted.

An extensive risk-assessment questionnaire was developed for professionals working in the Dutch organizations that execute court orders (Scholte 1998). Predictive validity was established with regard to serious behavioral and emotional problems (Scholte 2000). Longitudinal research found that the use of this screening device makes service delivery more efficient and that assessed children and juveniles display an improved behavioral and emotional development compared with the nonassessed youngsters (Scholte and van der Ploeg 2003).

Doreleijers et al. (1999) developed a questionnaire and protocol for needs assessment in juvenile justice cases that standardizes the assessment procedure with regard to youngsters with penal law problems, called the BARO. It is based on the Problem Oriented Screening Instrument for Teenagers (Dembo 1994). Eight relevant fields are assessed: offending behavior, psychosocial development, physical development, behavioral problems, emotional problems, and problems with regard to the family, school, and peer group. The instrument produces a standard report that feeds the police, the public prosecutor, and the juvenile judge with background information. The BARO also produces an indexed indication whether individual youngsters are in need of further psychiatric assessment and mental health treatment. Research showed that the internal consistency of the BARO index is satisfactory when information is retrieved from both youngsters and their parents. The BARO is used by all officials working in the offices of the board for the protection of children with regard to juvenile penal law cases; it is appreciated for having led to a better systematization of relevant information (Bailey, Doreleijers, and Tarbuck 2006).

These instruments target underlying psychosocial or psychiatric needs of youngsters but are not designed to assess the risk for potential serious and violent juvenile offending. For that reason, we suggested the development of a device based on the Cambridge Screening Device (Blumstein, Farrington, and Moitra 1985; Le Blanc 1998). This proposal has not been pursued by Dutch researchers and policy makers.

B. Recent Findings

Although juvenile delinquency has generally been stable during the last decade, some remarkable changes have taken place. Census findings have suggested not only that serious offending has risen among children and youngsters, but that the onset of violent behavior has shifted toward lower ages (Ferwerda and Versteegh 1999; Kruissink

and Essers 2003; Eggen et al. 2005). These developments have paved the way for comprehensive new governmental measures to correct this undesirable trend.

Preventive measures pertain to increasing the opportunities for youngsters to participate in society, for example, by guaranteeing safe homes, schools, and leisure time activities and by offering an easily accessible and well-organized infrastructure of health and day care for children and of educational, sport, and recreational facilities. Secondary preventive and curative measures aim at detecting juveniles at risk of dropping out of society at an early stage and correcting the maladaptive development of these children as soon as it is observed, for example by offering children and families appropriate material, psychological, and social help. Parallel to this, the maintenance of law and order has been tightened. Policies for first and light offenders is directed toward stopping the further development of criminal behavior, whereas juveniles who have committed multiple or serious and violent offenses are incarcerated in closed institutions, to receive a treatment directed at reeducation and resocialization (Justice Department 2003).

The screening of risks and needs has a central position in the execution of these new measures. To decide what must be done with regard to first and light offenders, police and justice officials need to identify the likelihood that serious and violent offending behavior will develop. To decide whether the treatment of already serious and violent offenders is successful or whether violent youngsters can be safely released, justice officials need to assess the likelihood that the serious and violent offending behavior will not be repeated. To decide whether children and families are in need of support, mental health professionals must be able to appropriately assess risks and needs. And finally, to decide whether the interventions initiated by these policy measures indeed meet their objectives, devices are needed to determine outcome effects. As a result, development of devices and procedures that reliably and validly screen risks and needs has moved higher on researchers' and practitioners' agendas in years.

To standardize the multiple risk assessments with regard to children at risk across mental health, child welfare, and child protection organizations and to make the assessments less time-consuming, proposals have been put forward to develop and implement less extensive screening devices. Proposals pertained first to the Strength and Difficulties Questionnaire, a brief behavioral screening questionnaire that can be

completed in five minutes by parents or teachers of children aged four to sixteen. This device claims to detect behavioral and emotional problems in children as well as the well-known but more extensive CBCL (Goodman and Scott 1999).

However, developmental improvements in the youngster or in his environment due to the interventions cannot be assessed by this device. With this in mind, Dutch researchers have proposed a new short screening device, the standard taxation of the severity of problems (STEP). This new device is administered by social workers in about ten minutes. Risks with regard to the personal development of the youngster, and with regard to the socialization environment, are assessed on five-point scales. Twelve global leading questions (such as "Is there a chance that the youngster (still) will have problems with regard to his personal functioning?") are used and are clarified by extensive definitions and instructions. The instrument can be characterized as a guided risk schedule.

Preliminary research has suggested that social workers find this device useful (van Yperen, van der Berg, and Eijgenraam 2003). However, to rule out subjective bias, the reliability and predictive validity must be satisfactorily established in future research, since many earlier guided assessment schedules had difficulties with interrater reliability (Quay 1979). If the psychometric quality of the STEP turns out to be good, it will be suitable for assessing risk and needs in children at risk in a quick and standardized way, and it will be suitable for assessing the efficiency of the interventions taken to address the risks found (Slot et al. 2004).

With regard to the assessment of the psychiatric treatment needs of sexual juvenile offenders, a special module was developed for the BARO to estimate the risk of repetition of offending behavior by young sex offenders. Preliminary research suggested that the practitioners highly appreciated the extra information with regard to sexual offending that was added to the files of the youngsters by using this module. However, the implementation of the new module did not result in an increase in the predictive power of the original BARO (van Wijk, 't Hart, et al. 2005).

In the realm of assessment of delinquency-related social-emotional problems in youngsters, Scholte and van der Ploeg (2005) developed a seventy-two-item questionnaire for children aged four to eighteen to be filled in by parents and teachers. The screening device measures

DSM-IV-related symptoms of ADHD, oppositional-defiant disorder (ODD), CD, major anxiety and mood disorders, and autism. An additional module was developed to measure social and emotional detachment (or psychopathic personality traits) in youngsters. Reliability and validity were established in large samples of the general Dutch youth population. The instrument is of particular interest with regard to serious and violent juvenile offending because of its ability to screen for comorbid disorders in youngsters that have proven to be predictive of antisocial personality disorder at young adulthood, for example, ADHD, ODD/CD, and emotional detachment (Loeber, Burke, and Lahey 2002).

These instruments screen delinquency-related psychiatric and mental health problems in youngsters. They do not, however, directly target (potential) serious and violent offending behavior. This screening issue was taken on by researchers working in the area of juvenile forensic psychology and psychiatry, who introduced instruments to assess and control the risk for serious and violent offending behavior in youngsters.

With regard to young children, the Early Assessment Risk List for Boys (EARL 20B; Augimeri et al. 2001) has been translated into Dutch. This twenty-item questionnaire is designed to bring down the risk for violent behavior in boys till the age of twelve by assessing and controlling risk factors in the family (e.g., family problems, lack of support, family stress, bad parenting, and deviant norms), in the child (e.g., behavioral problems, trauma, and impulsivity), and around the child (school problems, deviant friends, and police contacts). However, the validity of this device is yet unknown since research is still under way (Lodewijks et al. 2001).

With regard to adolescents, a translation into Dutch was made of the Structured Assessment of Violence in Youth screening device (SAVRY; Lodewijks et al. 2001; Borum, Bartel, and Forth 2002). The SAVRY is composed of twenty-four risk items drawn from existing research and professional literature on adolescent development and violence and aggression in youths. The risk items cover three domains: historical (e.g., previous violent and nonviolent offending, age of onset, history of child abuse, dropping out of treatment in the past, parental criminality, and poor school performance in the past), contextual (e.g., antisocial peers, poor parenting, and living in bad neighborhoods), and individual (e.g., attentional problems, impulsive behavior, drug abuse,

psychopathic traits, avoidance of treatment, and detachment from school/work). The device also includes a set of items measuring protective factors (e.g., prosocial life orientation, social support, and positive attitudes toward work). Predictive validity was investigated in various retrospective and cross-sectional samples of incarcerated juveniles and in one twelve-month longitudinal sample in forensic institutions (Borum, Bartel, and Forth 2005). Receiver Operator Curve analysis showed areas under curve ($AUC = s$) of about 0.66 for general offending and of 0.74 for violent offending, suggesting that the screening device predicts the reoccurrence of violent offending behavior slightly better than chance. These findings suggest that the instrument is potentially useful but that more research is needed. This pertains not only to the reliability of the risk assessments but also to the predictive validity. Moreover, longitudinal controlled studies are needed to establish that the interventions directed at the risks targeted by the SAVRY indeed control the (further) development of serious and violent offending behavior in youngsters. Regarding these issues, research is planned in Australia, Sweden, the United Kingdom, the United States, Canada, and the Netherlands in which its usefulness and the psychometric properties will be investigated in various institutions for incarcerated juveniles (Lodewijks, de Ruiter, and Doreleijers 2003).

C. Conclusions

Since the mid-1990s, serious and violent offending among children and youngsters increased in the Netherlands. Preventive measures were proposed to strengthen the bonds of youngsters and families to society and to enable early detection and correction of juveniles at risk. Corrective measures pertain to stopping and correcting the offending behavior.

To execute measures efficiently, juvenile justice and mental health practitioners need valid and reliable screening instruments, first to screen the risk of (potential) serious and violent offending behavior in youngsters and second to screen the underlying material, psychological, psychiatric, and social needs of youngsters and their families.

In the distant past, most Dutch professionals working with delinquent juveniles used their own screening devices, usually information sheets. Although these instruments often had a sound face validity, their reliability was often controversial. New risks and needs screening devices have been developed, or imported from other countries, that

were based on empirical research revealing multiple relevant factors associated with the development of serious and violent delinquent behavior.

Instruments cover not only the offending problem behavior but also multiple risk factors (biological, psychological, and environmental—e.g., family, school, and peer group factors). Recent instruments also screen for the precursors of antipersonality disorder in children, for example, ADHD, ODD/CD, and psychopathic personality traits.

Although most instruments display good psychometric properties, according to practitioners the administration of the instruments often takes too much time and effort. There is a call for screening devices that can be administered in a shorter amount of time.

Assessment devices have been introduced to ascertain the risk for juvenile serious and violent offending behavior. To assess risk in young children, the EARL 20B has been translated into Dutch. To assess this risk in adolescents, the SAVRY screening device has been implemented in various institutions for incarcerated juveniles in Holland.

More research is needed to establish the reliability and validity of the various screening instruments. More research is also needed to establish that interventions directed at the risk targets pointed by identified various risk-assessment instruments indeed reduce the (further) development of serious and violent offending behavior. To establish this, longitudinal case control studies are needed.

VIII. Prevention¹⁰

The Netherlands is passing through a difficult period of instability and transition related to important social and economic change, a period that started some fifteen to twenty years ago. Some obvious changes include the shift from a social welfare state into a more market-oriented state, economic recession, and problems with immigrants. Although two political murders within hardly a year worsened the situation, these changes are not limited to the Netherlands, since they are clearly to be seen in many European countries. One consequence is an increase in insecurity and fear: fear for one's job or one's income, fear for what the future might bring, and fear of crime, all leading to demands for more security, more police, more repressive policies, and longer sentences.

¹⁰ Josine Junger-Tas provided the material on which this section is based.

One question is to what extent these trends have affected juvenile justice and prevention policies. From 1985 through the 1990s the Ministry of Justice was associated with, and initiated, a program of national and local prevention policies. This has now changed. Extensive budget cuts and public opinion pressures for harsher punishments made it difficult to meet all challenges simultaneously. The present minister of justice believes that prevention is not an essential task of the Ministry of Justice, although it collaborates with the Ministry of Public Health and Welfare in a number of projects. However, the main responsibility for youth policies in general and prevention policies in particular is in local and provincial authorities.

A. Review of Findings

Originally the objective of most prevention programs was not to prevent serious and violent criminality. Their main goal was to improve the lives of mothers and their young children in deprived neighborhoods by addressing the health and educational skills of the mother and the cognitive development of the child. Examples are programs developed and evaluated by Olds and his colleagues (1986, 1988). Only when longitudinal research showed the stability of early antisocial and aggressive behavior (Olweus 1979; Huesmann et al. 1984; Farrington and West 1990; Loeber 1991) did the importance of the prevention of later criminal behavior become evident. In the Netherlands there was a similar development. Programs such as early education and parent training have developed from concerns about children's permanent lags in education, young people's lack of labor force participation, and intergenerational poverty.

1. *Early Intervention.* The focus on prevention has shifted from the Ministry of Justice to the Ministry of Public Health and Welfare. Great sums of money are invested by the funding agency *Zorg Onderzoek Nederland* (Research on Welfare and Care in the Netherlands), instituted by the Ministry of Public Health and Welfare, in different kinds of prevention research programs, such as an extensive test of the Olds program, including parent training. The program has been adapted to Dutch culture and will be evaluated by an experienced research unit of the Sophia Children's Hospital (Erasmus University Rotterdam). More generally, research on the development of young children is encouraged, and ways are looked for to improve screening methods of (very) young children and their mothers so as to detect eventual psy-

chosocial family or child problems. The local health authorities, administered by the local authorities, play an increasingly important role.

Local health care is organized in so-called consultation offices in which babies up to age two are regularly examined—free of charge—and small children aged two to four remain under medical control. This is a universal program reaching about 95 percent of all families. The consultation offices follow a recently established basic health care program that is increasingly standardized, making sure that it is uniformly applied. Considerably more focus is placed on screening for early psychosocial family problems and antisocial child behavior. In addition, many of the existing parent training programs, focusing on transfer of educational skills to assist parents, have been developed and are administered by these offices.

One problem with the original training programs was their voluntary character. Families that ideally should be reached from a perspective of crime prevention, that is, multiproblem families or families under a civil supervision order, were not reached, as appeared from reviews of participating parents (Bakker et al. 1997). However, parent training may now selectively be imposed on parents whose children are persistent truants or in the case of families under a supervision order. In addition, the minister of justice, considering that parents have considerable responsibility for the actions of their children, is examining the possibility (taking the United Kingdom as a model) of imposing parent training as a measure on parents when their children have committed an offense.

There has been undeniable progress since the late 1990s in terms of prevention programs for families and young children. At the same time, parent training is increasingly used by the child care and juvenile justice system as a sort of parent disciplining measure.

2. *School Programs.* With respect to early education, a number of tested programs are available. For example, a Dutch version of the Perry Pre-school Project (Schweinhart 1987; Schweinhart et al. 1993) and Slavin's "Success for All" (Slavin et al. 1990, 1993) have been carefully tested and found effective (Lesemann et al. 1998, 1999). They have been introduced in Dutch schools under the names of *Kaleidoscoop* and *Piramide*. In addition, there are three other original Dutch programs (*Kea*, *Opstap*, and *Overstap*) focused on the improvement of cognitive development of primary school pupils, which have also been found effective (Kook 1996; Wolfgram 1999; van Tuijl 2002). Two

American social competence programs, the Good Behavior Game (Kellam et al. 1998), a program for primary school pupils, and Skills for Life for secondary school students, have been adapted to Dutch culture and have been extensively tested and found effective (van Lier 2002; Gravesteyn 2003).

In the late 1990s the Ministry of Education made a start with introducing tested early education programs in all schools situated in deprived areas. For budgetary reasons it was a gradual approach, and at the end of the last century one-third of all target schools had been reached. However, since then, decentralization policies made local authorities responsible for primary education, and we do not know what has been left of these policies. This is all the more uncertain since the ministry considerably reduced school budgets for extra educational assistance to deprived children.

a. Education Programs. Several programs have been set up to get persistent truants and dropouts back to school or into an apprenticeship. These young people are referred to the program by the education authorities. Most have considerable problems with parents, such as neglect and abuse, alcohol abuse, and incest, and at school, such as conflicts with teachers and pupils, alcohol and drug abuse, gambling, delinquency, and a lack of social skills and self-confidence. Careful screening is the basis of a treatment plan, combining instruction with monitoring and assistance. Most stay six to twelve months; the majority take up school again or join the labor market. The program is followed by several months of aftercare and monitoring. These programs are supported by the local community, the police, child care agencies, and labor organizations. Although they have not been scientifically evaluated, they seem quite successful in helping troubled youths to resume their education or to get a job.

Finally, communities continue to create so-called *Large Schools* in deprived neighborhoods (so called because they combine educational and social services under one roof). Their objective is to improve the effectiveness of the education process; to enlarge the school's functions; to relate home, school, and leisure; and to reinforce pupils' social competence. To achieve this, communities have reintroduced social work in the school, lengthened the school day with recreational activities, involved neighborhood residents, and included offers of parent training and social competence programs for pupils. Although most of the

Large Schools are primary schools, some secondary, technical schools have also adopted the model.

b. Community Programs. In 1999 both the Ministry of Justice and the Ministry of Public Health and Welfare funded the implementation and evaluation of the American program Communities That Care (CTC; Hawkins, Catalano, and Associates 1992; Catalano and Hawkins 1996), a very structured and rational prevention model. The program is based on research-based risk and protective factors in relation to behaviors such as delinquency, drug abuse, violence, being a school dropout, and teen pregnancy. Priorities for preventive action are based on careful analysis of risks and protections in the community and are followed by the input of effective intervention programs addressed to the selected risk factors.

The CTC was piloted in four sites, two of which were deprived neighborhoods in Amsterdam and Rotterdam. Since the funded experimental period was no more than four years and since the introduction of such an elaborate program was not without considerable practical difficulties, the accompanying research had to be limited to an implementation evaluation. The interim results of the process evaluation (DSP Research Group 2004) refer mainly to output data, that is, to information on the possibility of directing, administering, and controlling the operation of relevant organizations and service providers. Several conclusions can be drawn concerning the number of different organizations involved in CTC, the share of social service providers, the extent of mutual collaboration, and the degree of support by community leaders. It appeared to be considerably more difficult to involve residents and young people in the CTC process. So far the Dutch outcomes do not differ greatly from what has been found in the United States: increase of the quality of planning and decision making; greater collaboration among service providers; more coordination in the input in programming of preventive interventions; greater focus of preventive interventions on risk and protective factors; greater use of demonstrated effective and promising approaches; and more involvement of young people and other citizens in preventive interventions. The Verwey-Jonker Institute in Utrecht has been commissioned to conduct a process and outcomes evaluation of three new pilots (The Hague, Leeuwarden, and Almere) and a restricted outcome evaluation of the four first pilots (since that study was limited to a process evaluation). This study has only recently started so that nothing can be said about

the program's possible effects. Amsterdam, however, wants to spread CTC to other parts of the city, and Rotterdam wants to introduce it in the whole city. One of the Netherlands' thirteen provinces (South Holland) has adopted CTC as a provincial program to be introduced on a large scale.

C. Conclusions

In a review of the main developments in the last five years, the question is to what extent there have been changes and to what extent one could—cautiously—identify new trends. We have three observations. First, the principles of evidence-based interventions have gained considerable ground, as is testified by numerous examples. In research, the main progress is undoubtedly to be found in the public health field: it is there that research standards are highest, the best outcome evaluations are to be found, and the first longitudinal studies have started. However, progress may also be noted in criminology. For example, the Dutch Ministry of Justice is following the British model, introducing an Accreditation Commission for treatment programs. Also prompted by budget cuts, the ministry realized that it was impossible to continue funding all kinds of projects and interventions, most of which had no demonstrated effects. The ministry is determined to put together a pool of effective, or at least promising, programs (to be evaluated as soon as possible), so as to know what interventions to use and to have better control over spending. Another example is a survey done by the Nationaal Instituut voor Zorg en Welzijn (National Institute of Care and Welfare [NIZW]) on behalf of the CTC experiments of all effective and promising prevention programs in the Netherlands (Ince et al. 2004). The same institute is setting up a database of all effective Dutch interventions in the field of (psychosocial) health and justice. Finally, although this has taken some time, practitioners increasingly realize that for their programs to be accepted, good-quality research has to demonstrate its effectiveness.

Second, there is some difference in focus between the United States and the Netherlands as far as prevention is concerned. The U.S. literature focuses mainly on programs for specific risk situations and addressed to individual children or youths; the trend in the Netherlands is to think in terms of broad national or local policies. This is illustrated, for example, by the consultation offices, which produce national rates of infant and young children's health, which are among the best

in the world. It is also demonstrated by initiatives introducing early-education programs in all schools in deprived neighborhoods or in the Large Schools, initiatives that may assist numerous children to succeed in their school careers. Whether this will be the case should of course be measured in terms of truancy and dropout rates, but the focus in these cases is more on policies of local authorities than on effective prevention programs. Another example is the initiatives of schools for technical and vocational training to modify their curricula (promoting job training) and to connect with the business community around the schools so as to allow pupils to get jobs. Again, practitioners should be trained to put registration systems in place so as to have some control over what they try to achieve, but it is the difference in focus that we find of interest here.

This brings me to my third point, a nagging problem for which no satisfying solution has been found. We refer to the dissemination of effective interventions into standing practice. For example, a social competence program for primary schools, the Good Behavior Game, has been implemented in the Netherlands with great care and evaluated in an excellent study. Now what will happen if a great number of schools would wish to adopt this program? Although there is an implementation manual for practitioners, taking into account the way teachers usually maintain order and discipline, it is clear that they would need careful training in how to apply the game. This is true for many programs if one wishes to guarantee program fidelity and treatment integrity, but unfortunately in practice this is not always possible, if only for reasons of cost-effectiveness.

This problem has been considered in the United States and Canada, and on the basis of Lipsey's work, Howell discusses it from the standpoint of local juvenile justice interventions (Howell 2003, pp. 216–623). Lipsey conducted a meta-analysis of practical juvenile justice programs that had a rehabilitative orientation but were *not* research demonstration projects (Lipsey 1999; cited by Howell), finding that nearly half of them reduced recidivism by 10–24 percent, whereas some of the best reduced recidivism by 20–25 percent. In this respect the following characteristics were important: the provision of services, a sufficient amount of services, relation of these services to the relevant target group, and a distinct role for the juvenile justice system. The more of these characteristics an intervention realized, the greater the reduction in recidivism. Howell pleads (p. 221) for a pragmatic ap-

proach by which program principles and guidelines for effective interventions resulting from previous evaluations are taken up by communities and used in practical program development. This might then lead to evidence-based practices or “best” practices. Although this problem has not yet really been dealt with in the Netherlands, given the Dutch tendency to look for pragmatic solutions in policy terms, it seems to me that more reflection is needed if we want to improve prevention policies.

IX. Interventions¹¹

Effectiveness studies have not been published in the Netherlands since 2001, but several have been started. Although an interest remains in outcome studies, official policy has been noncommittal and sometimes reluctant. Implementation of findings from outcome studies has been noncommittal and unrigorous.

A national recidivism study, however, showed alarmingly high serious recidivism by juveniles discharged from justice institutions, which made it increasingly clear that the practice of juvenile justice care needed a better theoretical and empirical basis and improved day-to-day practices in working with juvenile delinquents. The Ministry of Justice has now adopted a policy of establishing such bases.

A. Review of Earlier Findings

When we initially reviewed the Dutch intervention studies on delinquency (Bartels, Schuurmsma, and Slot 2001), we presented the results of four meta-analyses of interventions with juvenile delinquents: Lipsey and Wilson’s (1998) meta-analysis of 200 intervention effect studies; Hollin’s (1994) meta-analysis of meta-analyses, covering more than 500 effect studies; and the meta-analyses by Kazdin (1997*a*, 1997*b*) and Breston and Eyberg (1998) for youth in noninstitutional settings. An essential element of effect research is the use of an experimental design, a random clinical trial (or in some cases a strictly controlled quasi-experimental design) with one or more intervention groups, and at least one control group of no intervention or a different intervention. Random assignment of individuals to experimental and control groups is methodologically the most sound, but nonrandom assignment with checks on comparability is often used in quasi-experimental designs.

¹¹ Arnold A. J. Bartels provided the material on which this section is based.

For noninstitutional interventions with delinquents, Lipsey and Wilson (1998) found consistent positive results for individual counseling, training of interpersonal skills, and behavioral interventions, with positive but less consistent effects for multiple services and probation and parole. The best interventions in institutional programs were based on interpersonal skills training and teaching-family homes. Lipsey and Wilson reported positive but less consistent findings for behavioral programs, community residential programs, and multiple services. Hollin's (1994) meta-analysis provided insight into the characteristics of effective programs, such as the presence of a clear structure (such as behavioral programs and social and interpersonal skills training), cognitive components (covering modification of cognitive processes that accompany or cause antisocial behavior or a set of behaviors that leads to antisocial behavior), and a focus on change of attitudes, core beliefs, behavioral standards, and values. The best programs were carried out in the social networks of juveniles or program components concentrated on influencing these networks.

Kazdin's (1997*b*) qualitative review made explicit criteria for promising interventions that are not yet fully supported by effect research. They include the following: the intervention is conceptually sound, on the basis of at least some fundamental research regarding the core concepts; there are clear signs of intervention effectiveness; and a specified relationship between the interventions as a source of change contributes to the results. Kazdin recommended four intervention types: training cognitive interpersonal solution skills, parent management training (PMT), functional family therapy (FFT), and multisystemic therapy (MST). On the basis of their analysis of eight-two effect studies over a period of twenty-nine years (covering 5,272 youths), Breston and Eyberg (1998) also concluded that PMT and FFT were effective.

Van Gageldonk and Bartels (1991) undertook a meta-analysis of interventions in child and youth psychiatry, psychology, psychotherapy, and psychosocial help programs in the Netherlands from 1974 to 1990 (fifty-four evaluation studies). Positive treatment effects were associated with interventions with a clear structure teaching juveniles and families daily life skills for crucial life transitions. Examples were behavioral programs improving social competence and interpersonal and social skills training. In contrast, nondirective interventions did not show positive results, and the effectiveness of "therapeutic camping"

was inconsistent or negative. Juveniles who dropped out from programs showed little or no improvement.

Meta-analyses (van Gageldonk and Bartels 1991; Lipsey and Wilson 1998) suggest a possible relationship between the degree of criminality and the degree of positive results. If the dropout rate can be kept low, the worst cases tend to demonstrate the most progress (they have the most to “win”). According to van Gageldonk and Bartels, there is also an indication of a relation between degree of criminality and duration or intensity of the intervention. A short duration tends to result in slight to moderate improvements, and a moderate duration or intensity is associated with moderate to high improvement. A longer duration or a large intervention investment gives less positive results. The duration and intensity of interventions often are a sign that the juvenile problems are intransient.

Not all interventions are beneficial. The Cambridge-Somerville study (started in 1937; interventions ended in 1945, and follow-ups continued until 1990) for a long time was thought to have had no treatment effects because of its nondirective approach to child and family problems. However, a reexamination of the original data showed that the intervention was followed by a worsening of delinquency and that a strong negative factor associated with this worsening was juveniles' attendance at summer camps (Dishion, McCord, and Poulin 1999; the summer camps were for “normal” youth, not for juvenile delinquents). The authors concluded that peer group processes probably contributed to the negative results.

There is, however, a plethora of effective interventions. Documentation about the best intervention (and prevention) programs can be found at the Web site <http://www.Colorado.edu/cspv/blueprints>, which is a collection of programs with proven effectiveness, screened by scientists, and replicated at more than one site. The reader is referred to this source for details.

B. Recent Findings

Interventions routinely undertaken with delinquents in the Netherlands often are characterized by the following features (based on Boendermaker and Verwers [1996], Le Sage [2004], and the author's knowledge from contacts with board members, directors and workers in institutions, and from annual reports of institutions). Service personnel usually make their own selection of what they think to be the

core of effective treatment components without making use of known effective interventions. Target categories are defined, treatment rationales formulated, and treatment strategies stated. Nine of the eighteen juvenile justice institutions have chosen to use the social competence model (Le Sage 2004), which is based on operant, cognitive, interpersonal, and social skills training including the teaching-family home approach, a combination that was proven to be effective (Bartels 1986; Slot 1988; van Gageldonk and Bartels 1991; Kazdin 1997*a*, 1997*b*; Lippsey and Wilson 1998). However, treatment integrity usually has not been systematically evaluated, and compliance with program implementation is rarely carried through. In addition, methodologically sound evaluation studies including comparisons between appropriate control and intervention groups (randomized controls and experimental subjects) have not been carried out.

Recidivism rates remain of high concern because they are alarming. Juvenile recidivism rates after discharge from juvenile justice treatment institutions remain high. A recent recidivism study by the Ministry of Justice (Wartna, el Harbachi, and van der Laan 2005) covers 7,978 youngsters, of whom 6,160 were placed in institutions because of delinquency and the others for nondelinquent problematic behaviors (88 percent for boys). Age groups were fifteen years and younger, sixteen to seventeen, and eighteen years and older. The youths left juvenile justice institutions in the period 1997–2000. There were no differences between age cohorts: general recidivism, serious recidivism (potential detention punishment at least four years), and very serious recidivism (eight years) after one year were 40 percent, 36 percent, and 12 percent, respectively; after four years, 70 percent, 62 percent, and 29 percent; and after seven years, 78 percent, 69 percent, and 36 percent. Differences in the recidivism levels between institutions, although not reported, are likely because they included detention centers, other institutions set up for diagnostic purposes, and treatment institutions.

In the past, intervention in Dutch justice institutions focused on personality assessment, crisis intervention, and treatment. However, much of this focus shifted in 2004 when the Ministry of Justice with its new policy, *To the New Juvenile Institution (Naar de Nieuwe Inrichting)*, gave the highest priority to the reduction of recidivism, the implementation of sanctions, and expansion of the number of juveniles and cost reduction per youth (Geerdink 2004, 2005). As part of this reorientation, programs now stress prison characteristics while

keeping in mind that the detainees are adolescents and are in a crucial developmental phase of their life. “Old” managers who had been youth-oriented received retraining on how to focus on sanctions and management. Plans were made for placing two youngsters in one room, and in some institutions this has been implemented.

Treatment in facilities supervised by the Ministry of Justice appears (for some time in 2003, 2004, and the beginning of 2005, although less at the moment) to have turned to interventions based on old psychodynamic ideas of Aichorn (1930) and Redl and Wineman (1950) with no known documented effectiveness in reducing recidivism. In its present incarnation, the interventions have been combined with a very strict individual and group regime (resembling friendly military training of recruits) in a clear hierarchy between group leaders and juveniles; thus the opposite of a “soft and naive friendly” approach.¹² Jonker (2004) has reported a 9 percent recidivism rate after one year, but there are no appropriate controls (only estimated comparable recidivism figures of 38 percent). And it is not clear whether the 9 percent pertains to all the youngsters who left the institution or those who completed the program fully (dropout rates are not reported).

A recent meta-analysis of the Ministry of Justice (Baas 2005) came to the same conclusions as Lipsey and Wilson (1998), which is not surprising because the analysis was to a large extent based on Lipsey and Wilson’s findings. Generally the conclusion was that no effect or a negative effect was found for Scared Straight programs (visiting prisons as means of prevention, e.g.), group counseling in homogeneous groups, boot camps, noninstitutional vocational guidance, and regular probation. Positive effects were found for parent training, FFT, MST, therapeutic foster care, behavioral training (institutional and noninstitutional: social skills training in heterogeneous groups or anger management), and educational programs.

Currently, an outcome study on FFT is being carried out (Breuk et al. 2005). The Glen Mills approach (applying group dynamics and hierarchy in the context of an operant and modeling approach) also is the subject of research (van den Bogaart, Mesman Schultz, and van Muijen 2003). MST, PMT, and multidimensional family therapy (Rowe et al. 2002) are applied in some outpatient juvenile justice settings as

¹² A series of seven thirty-minute television programs on Friday nights in March and April 2005 on Evangelische Omroep (Evangelic Broadcasting) discussed this issue.

well, but outcome studies based on these interventions have not yet been carried out.

The importance of stimulating moral development by presenting youths with moral dilemmas and discussing them (the Equip program: Gibbs, Potter, and Goldstein 1998) has shown a positive effect on moral development in a random clinical trial (Nas 2005). However, it remains unclear whether the program reduces recidivism.

On September 7, 2005, the Ministry of Justice put into operation a committee to authorize behavioral interventions in the field (Erkeningscommissie Gedragsinterventies Justitie) and give permission for certain programs to be implemented. The committee adopted as guiding principles the Canadian What Works? approach (Andrews 1995; Lipsey 1995; van der Laan and Slotboom 2002; de Ruiter and Veen 2004), which is comparable to the intervention principles formulated by Kazdin (1997b).

C. Conclusions

Our past summary of recommendations (Bartels, Schuurmsma, and Slot 2001) still stands and can be supplemented by the following observations.

Outcome research data. Outcome research has very recently started to become a standard for juvenile justice care. Programs should in principle be evidence-based.

Treatment. An important component of interventions is the use of effective skills training aimed at preparing juveniles and families for daily life tasks and for critical periods in their lives. Interventions need to teach juveniles and members of their family alternative lifestyles that give fewer opportunities for antisocial behavior and delinquency. Intervention programs therefore should routinely teach youths and families to recognize the first signs of a behavioral chain (scenario) leading to antisocial behavior, and what to do instead. There is an implicit assumption, however: once juveniles have learned these new skills, they have to experience success in using them in society. The interventions should focus not only on behaviors, skills, and scenarios of antisocial behavior but also on emotions and cognitions (core beliefs and implicit life rules). Personality development and family and systems interventions are recommended as well as multimodal interventions.

Differentiations should be made among target groups. No one approach works for all. Differentiated applications are required. More

research is necessary on deviant developmental pathways, particularly taking into account conflicting cultural, behavioral, and religious standards and values among minorities. Interventions may have to be differentiated according to gender, age, intelligence, social status, psychiatric disorders, familial and social network configurations, and cultural, ethnic, and religious characteristics, and also neurobiological and personality features. Although the concept of psychopathy is widely used in forensic psychiatric settings for adults (Hildebrand et al. 2002; Hildebrand 2004), it is used much less for juveniles.

Potential negative effects of treatment. Group treatment can potentially be harmful and should be structured to overcome potential negative effects (Dishion, McCord, and Poulin 1999). Experimental evaluation of the handling of group dynamics is essential.

Program evaluation. Program integrity, the mutual influence between program and organization, requires continuous monitoring. The initiator of the intervention program has a crucial role in program integrity (van Gageldonk and Bartels 1991; Hollin 1994). The longer he or she is working on the program, the better. The initiator should also be responsible for program renewal and for organizational embeddedness of the program. In a chaotic organization, even the most sound program is likely to fail.

Methodologically sound evaluations and treatment effects research remain highly necessary. We have a very limited understanding about what works for whom and under what circumstances. An important requirement is periodically to repeat effect evaluations.

For effect research *the difference between internal and external validity* should be kept in mind. An intervention program with a proven effectiveness for noninstitutionalized adolescents between, for example, ages fourteen and eighteen (with sound internal validity) may very well be not effective for the same target group in another country or in different circumstances. The extent to which program effectiveness generalizes to other populations is a matter of external validity and often does not receive the attention that it deserves.

Screening for risk. Risk assessment and prognostic instruments have to be developed and refined (but see Sec. VII of this essay). Yet in the Netherlands there is not a sound validated and standardized risk-assessment or prognostic instrument for juvenile offenders. Such an instrument is also necessary for risk management and ascertaining improvement rates (improvement in criteria that can reflect change). The

Psychopathy Checklist Revised (Hare et al. 2001) has a youth version that is being validated in the Juvenile Justice Treatment Institution, Harreveld, in the Netherlands. In addition, the SAVRY (Lodewijks, de Ruiter, and Doreleijers 2003), which is based on a comparable instrument for adults (Historic, Clinical, and Risk, twenty items; Philipse et al. 2000; Webster, Müller-Isberner, and Fransson 2002), is being validated. An outstanding and cross-validated Dutch risk-assessment instrument for juvenile delinquents (Brinkman and Kars 1974; Mesman Schultz 1977; Bartels 1986) was not used because of the social climate in the 1970s: professionals did not want to judge persons by figures. Risk-assessment instruments can teach us a great deal about important causal factors that we now know only in very broad terms.

X. Police and Justice Interventions¹³

Some tens of thousands of young people between ages twelve and seventeen come into contact with the police in the Netherlands every year because they have committed a criminal act (65,100 in 2004).¹⁴ The number of serious and violent delinquents among these youths has increased.¹⁵ All are confronted with an official response from the police, and often from the public prosecutor and a juvenile judge. This section focuses on these responses and, as far as this has been studied, their impact on the delinquent behavior of the youths involved.

This overview is subject to a number of limitations. First, the focus is on juvenile offenders aged twelve to seventeen, the boundaries of juvenile criminal justice in the Netherlands. Second, many interventions are not oriented toward particular categories of offenders or offenses, but toward a phase in the proceedings or toward a particular traditional intervention with a view to replacing it. One can seldom speak of an exclusive focus on serious and violent delinquents. It may be assumed, however, that nearly all youths who have to account for their actions in court will fall under the definition of serious and violent delinquents (Loeber, Farrington, and Waschbusch 1998). The same applies for youths involved in projects designed as a substitute for unconditional detention. A third limitation is that many interventions are

¹³ Peter van der Laan provided the material on which this section is based.

¹⁴ At the end of the 1990s, this figure was stable at around 47,000. At the start of this century, the number increased sharply to 65,100 in 2004 (Eggen and van der Heide 2005).

¹⁵ The share of youths suspected of a violent crime against a person was 9 percent in 1990. By 2004, that share had doubled to 21 percent.

not subject to evaluation and are certainly not regularly evaluated. Moreover, many evaluations are directed toward a process or implementation rather than toward outcomes. Finally, many of the evaluations are mediocre.

A. Review of Earlier Findings

The Dutch juvenile justice system rests on two pillars: a civil law pillar and a criminal justice pillar. A criminal justice response is possible if a youth is aged twelve or over. A civil justice response is also possible, in the form of a child protection order. This may be issued in respect of children under age twelve but also in respect of children aged twelve and over. The latter applies particularly if the criminal act is seen as a symptom of serious psychosocial problems, meaning that support should be offered to the youth, and possibly to the family. No records are kept of how often this happens.

Three levels can be identified in the criminal justice approach to juvenile crime: the police, the public prosecution service, and the courts. In the event of an arrest, the police decide whether to charge the individual with an offense and refer the case to the office of the public prosecutor. The public prosecutor decides whether to prosecute. Many cases are dismissed or settled, often on condition that the juvenile completes an alternative sanction. This is not the outcome for other young people; they are indicted by the prosecutor and have to appear in court. The court generally deals with individuals only six to twelve months after they were first arrested.

1. *Police.* The precise number of cases handled by the police is not known because charges are not always issued. Given a trivial offense or problems of a psychosocial nature, cases will be handled informally with a reprimand or diverted to a support agency. In the 1980s, it was estimated that a third of all juvenile contacts with the police were handled in this way (van der Hoeven 1985). Another important way that the police may deal with cases is by referring them to "Halt." The Halt option is designed for youths who have been found guilty of vandalism or shoplifting. The youths carry out damage compensation activities or cleaning tasks (for up to a maximum of twenty hours), and if the tasks are successfully completed, the charges against them are dropped. The police sent over 23,000 youths to Halt in 2003. In other, more serious cases, the police issue charges and refer the cases for further

processing by the public prosecutor. In 2004, the number of such cases was almost 34,000.

2. *Public Prosecutor.* The public prosecution service has been dealing with juvenile cases in ever growing numbers. The number of cases registered in 1998 was 26,000. By 2004, this had increased to over 33,800. Public prosecutors deal with 63 percent of these cases themselves, settling the cases or dismissing them. Often this settlement or dismissal is arranged under the condition that an alternative sanction is carried out or compensation paid. The public prosecution service imposed 11,500 alternative sanctions in 2004. In contrast to previous years, the share of settlements and, particularly, dismissals has decreased markedly. More cases end up with an indictment: 11,900 cases were presented to court in 2004.

3. *Court.* In the 1980s and 1990s, the number of cases handled by the court fluctuated around 6,300. That number has increased since the mid-1990s to nearly 11,900. The court imposed 17,500 sanctions in these cases. The majority (44 percent) were alternative sanctions. Most involved periods of community service (70 percent), though educational punishments (social skills training, courses, etc) were also imposed frequently. Alternative sanctions replaced many fines, which are being imposed less and less often (700 in 2004). In 2004, 6,100 conditional and unconditional detentions were imposed; this was 86 percent more than in 1997. The share of these detentions in all sanctions imposed did not change, however (35 percent). Many conditional detentions are imposed in combination with an alternative sanction. The number of unconditional detentions doubled to almost 2,000. The average duration of the unconditional detention was eighty-seven days, which is, on average, forty-three days shorter than in 1998.¹⁶ In 2004, a further 2,270 youths were obliged to pay damage compensation. And 9,200 youths were required to undergo probationary supervision as a condition in a conditional sentence. Again, this number is much higher (95 percent) than at the end of the 1990s. The most severe sanction in Dutch juvenile criminal law is the “placement in a juvenile institution” measure. This measure, which may be imposed for a maximum of six years, was imposed on 250 youths in 2004.

4. *Youths in Contact with Police and the Judiciary.* The points made above illustrate the filter-like working of the different levels of the

¹⁶ Youth detention can last up to one year for twelve- to fifteen-year-olds inclusive and up to two years for sixteen- and seventeen-year-olds.

TABLE 3
Flow Chart of the Dutch Juvenile Justice System

Juvenile population of the Netherlands (12–17 years old inclusive)	1,100,000
Youths who commit offenses ^a	400,000
Unrecorded police contacts	Unknown
Recorded police contacts	65,100
Referred to support or child protection agencies	Unknown
Referred to Halt (2003)	23,000
Charges issued	34,000
Cases registered with the public prosecutor	31,000
Dismissal	3,700
Settlement	13,500
Indictment	11,900
Other (joined cases, transfers)	4,000
Alternative sanction	11,500
Cases handled by the court	11,900
Guilty with no punishment imposed	Unknown
Fine	700
Conditional youth detention	4,100
Unconditional youth detention	2,000
Placement in a juvenile institution	250
Alternative sanction	9,700
Other responses:	
Preventive custody (estimate)	2,900
Youth probation	9,200

^a Extrapolation from outcomes from national self-report research (van der Laan et al. 1998).

judicial system. The approach to tackling juvenile delinquents may therefore be typified as a system of “minimal intervention.” Restraint is the aim at every level: not every police contact is recorded, not every offense charged is sent to the public prosecutor, not every charge leads to an indictment, and not every indictment results in a detention. Table 3 quantifies this approach in approximate terms for the year 2004. On a cautionary note, the table can provide only a broad indication, since different measurement units are represented.

5. *Effectiveness of Interventions at the Police Level.* Police actions against young people have rarely been the subject of research. Junger-Tas and colleagues (Junger-Tas 1983; Junger-Tas, Junger, and Barendse-Hoornweg 1985) conducted research into the effects of recorded contacts with the police and the judiciary. They found that 56 percent of the 300 youths who had been in contact with the police did not come into contact with the police or the judiciary again. Since the

nature of the police decision was not incorporated in the research, we can learn little about the specific effects of an informal reprimand, referral to Halt, or issuance of charges.

Many support projects were set up in the Netherlands in the 1980s and 1990s designed for young people who had become known to the police. By participating in such a project, a young person could avoid further contact with the judiciary. Various projects were evaluated, but the research designs were far from ideal. Control groups either did not exist at all or did not match the experimental or intervention group on all relevant criteria. Effects were established on the basis of exclusively self-report data or exclusively police data, or during a limited period of time. It was not always clear what support was offered. In some cases, the cautious conclusion was drawn that offering support to young people who had been in contact with the police may reduce delinquent behavior and renewed police contacts (Scholte 1988; Boendermaker and Schneider 1991; Terlouw and Susanne 1991; Duipmans 1993; Terpstra 1997). The longer-term effects (one year and longer) are not known.

Five separate research studies have investigated the effect of Halt. Korf (2003) recently examined this collection of studies. He concludes that the hypothesis that Halt leads to lower recidivism rates is not based on a sound foundation. Only two of the studies used a control group, which in both cases deviated from the Halt group in essential characteristics. This leaves us unable to portray interventions at the police level in any comprehensive way. A particular oversight was the lack of research attention to or comparison with cases dismissed by the police (minimum intervention).

6. *Effectiveness of Interventions at the Level of the Public Prosecution Service.* Junger-Tas, Junger, and Barendse-Hoornweg (1985) also reviewed the effects of contact with the public prosecution service. Of the 150 youths who were involved with the public prosecutor, 60 percent had no further contacts in the subsequent two years. The nature of the prosecutor's decision (dismissal, indictment, etc.) was not incorporated in the analyses, so no statements can be made about the consequences of such decisions. As far as is known, research studies have not been conducted in the past two decades at the level of the public prosecutor that would support statements on the *impact* of prosecution service decisions. Studies have, however, focused on alternative sanctions. Only one study (van der Laan 1991) examines the role that al-

ternative sanctions imposed by the public prosecutor may play in preventing recidivism. Of 300 youths who were sentenced to an alternative sanction by the public prosecutor in 1984 and 1985, 51 percent reoffended during a period of three and a half to five and a half years. By way of comparison, of the 700 youths who were sentenced to an alternative sanction by the juvenile judge, 76 percent reoffended. These percentages are not, however, directly comparable since the public prosecutor cases were less serious than the cases handled by the juvenile judge.

7. *Effectiveness of Interventions at the Court Level.* The situation is most favorable for interventions at the level of the court. Various sanction types have been evaluated once or repeatedly (van der Laan and Essers 1990, 1993; Spaans and Doornhein 1991; van der Laan 1991; Drogts 1992; Vreeman 1992; Spaans 1993; Spaans and Reurslag 1994; Essers, van der Laan, and Veer 1995; Bles and Brouwers 1996; Duipmans 1996; van der Genugten, Timmerman, and Nijboer 1996; van der Steeg and Niemeijer 1996; Eggermont 1997; Baerveldt, Derksen, and Bijlsma 1997; Groen 1997; Horjus 1997; Kleiman and Terlouw 1997; Boendermaker 1999). It may be said of alternative sanctions, including the intensive educational punishments, youth probation, and "hard-core" projects designed for serious and multiple offenders, that they produce a better result than traditional sanctions. The proportion of reoffenders is somewhat lower; and if reoffending does take place, it is later, less frequent, and less serious. This applies particularly to interventions comparable with unconditional detention, that is, interventions imposed on juveniles who have committed serious offenses or have repeatedly been in contact with the police and the judiciary. But here too, as with the interventions at police and public prosecutor levels, many evaluations have been confronted with methodological problems. The research designs were often far from ideal, which has limited the persuasiveness of the results.

B. Recent Findings

The number of youths who come into contact with the police and the judiciary in recent years has increased (van der Laan 2005). The marked increase in the first years of this century is not easy to explain. For instance, the number of young people arrested by the police in 2002 increased by as much as 17 percent in relation to the preceding year and by a further 7 percent in 2003. Such major increases are

almost certainly the result of changes in the system, priorities, and recording, and only in part related to changes in the behavior of young people. An increase in the number of police and judicial responses has been observed for a longer period. More young people are receiving a sanction rather than having their case dismissed. In particular, the numbers of alternative sanctions and detentions have increased. This increase can be only partly explained by the increase in serious and violent offenses. It should therefore be attributed to societal attitudes that have prompted a more repressive response (van der Laan 2005).

Three recent studies within the framework of the “recidivism monitor” project, initiated by the Research and Documentation Center of the Dutch Ministry of Justice, have shed some light on young people’s recidivism after judicial interventions. Of all youths placed in a judicial juvenile institution, 70 percent came into contact with the judiciary again within four years of leaving (Wartna, el Harbachi, and van der Laan 2005). The most important predictor of recidivism is a history of contact with the judiciary. Research into recidivism among minors who appeared before a judge in 1997 shows that 59 percent of sentenced youths came into contact with the judiciary again within seven years (Wartna, Tollenaar, and Blom 2005). Recidivism is highest after an unconditional detention (84 percent). Of all youths who received a community service punishment in 1997, 58 percent reoffended within seven years. When the punishment took an educational form, the rate of reoffending was 64 percent. The recidivism rate after a fine was 53 percent. The third study explores recidivism after probationary supervision (van der Laan, van der Knaap, and Wartna 2005). A third of youths reoffended while under the supervision of the youth probation service, and two-thirds reoffended in the subsequent four years. Whether and how these interventions contribute to behavioral change is not shown by these studies. Targeted research into relevant offender, offense, and intervention characteristics is needed to explore these questions.

Recent years have seen an increased amount of research into judicial juvenile institutions. New treatment methods have been introduced and evaluation studies have started at the same time. The evaluations to date are limited to reporting the implementation process, changes in (prosocial) attitudes held by youths, general recidivism disconnected from the nature and content of treatment, and studies that lead to

cautious estimations of effectiveness (Nas 2005; van Dam 2005; van Heerwaarden, Hilhorst, and Slabèrtje 2005).

Two residential programs for juvenile delinquents have attracted a great deal of media attention in recent years: the Glen Mills School and the judicial juvenile institution Den Engh. Considerable social and political support for their approach is evident, but controversy is also attached to the group-oriented approach and the programs' similarity to American "boot camps." The institutions have presented their own findings, which at first appeared very positive (van den Boogaart, Mesman Schultz, and van Muijen 2003; Jonker 2004) but on further consideration were characterized as unreliable (van der Laan, Spaans, and Verhagen 2004). Two program evaluations have concluded that various aspects of the approach are questionable, tempering expectations that these interventions will prove effective (Hilhorst and Klooster 2004; van Heerwaarden, Hilhorst, and Slabèrtje 2005).

C. Conclusions

Little is known about the effectiveness of many of the interventions imposed by the police and judiciary as a criminal justice response. The recidivism studies carried out by the Research and Documentation Center of the Dutch Ministry of Justice have given more insight into recidivism in general, but whether and how different types of interventions contribute to behavioral change is mostly unknown. The methodological and other drawbacks associated with much of the Dutch evaluation research constitute an important reason for this lack of knowledge. These drawbacks undermine the validity of the research outcomes. In summary, the failings are as follows: the lack of control or comparison groups; problems matching control groups; young people dropping out of intervention programs before they end; young people dropping out of research groups at the time of follow-up contacts; small numbers of youths involved in interventions or evaluation; different definitions and operational understandings of effects and recidivism that hamper comparison; recidivism studies carried out over a short period of time; gaps in knowledge of the nature and content of the intervention; inconsistency of the content and method of the intervention; and outdated research data. Having considered these failings, we offer several suggestions for future research. Some relate to the object of the research, whereas others concern the nature and quality of the research. First, there is a need for greater transparency in

police and judiciary responses to reveal who ends up in the system and what decisions are made about them. Although more information is available now than five or so years ago, unreliable data and assumptions still leave too many gaps.¹⁷ A second challenge lies in obtaining better insight into the content and effects of *all* police and judicial interventions. The current situation is typified by selective and incidental evaluations. Third, the quality of evaluation research must be improved. Designs should achieve a minimum score of four or five on the Scientific Methods Scale (Farrington 2003). This means that the research should follow at least quasi-experimental designs, though ideally studies would follow randomized controlled designs. The research should meet a number of basic conditions, such as the standardization of recidivism measures and periods (see Wartna 1999). The nature, content, and method of interventions should be properly described. It should be established how an intervention was implemented and whether its execution went according to plan. This implies the need for good process evaluations in addition to sound research into effects. Such research clarifies to what extent interventions are directed by theoretical considerations. This is important because a clear, well-conceived, and elaborated theory will considerably increase the chances that an intervention will be effective. Many interventions in the Netherlands do not have such a theoretical basis. For the same reason, problems experienced by young people must be assessed, and the risk of repeat offending estimated, so that the right intervention can be applied “to measure.” This assumes availability of valid and reliable *risk-assessment* instruments. In this way, a real step forward can be made toward evidence-based practice.

XI. Next Steps

The preceding sections illustrate many of the strengths of efforts to understand the course and risk factors of serious delinquency and ways to deal with, prevent, and reduce serious offending by juveniles. In our earlier volume (Loeber, Slot, and Sergeant 2001), we articulated many conclusions. We see the following as the most urgent to be addressed in research and policy.

First, official national records of juvenile delinquency are still made

¹⁷ Reliable national data on sanctions and measures imposed have been available only for a couple of years.

available only after three to four years (e.g., Sec. I could report on data only through 2000, whereas we are now writing six years later). No well-formulated crime policy relevant to the present and reaching toward the future can be built on such out-of-date information.

Second, efforts to improve the early identification of youth at risk of escalating from age-normative problem behaviors to serious anti-social and delinquent acts remain at a very early stage of development and as yet do not appear to be instituted on a regional or broader basis to serve whole segments of the population.

Third, the evaluation of interventions, although slightly improving, remains of the highest urgency. Whereas evaluations of medications for health-endangering and communicable illnesses for their effectiveness are commonplace (an activity that is supervised by the government), it is extraordinary that intervention methods to improve the safety of people and the welfare of the present and future generations of youths do not receive similar scrutiny. No one is served by offering parents, teachers, and community workers programs that have uncertain outcomes. Offering intervention methods of unknown effectiveness on a large scale inevitably results in massive wastage.

Fourth, cost-benefit analyses of successful interventions are needed to document the costs in euros of implementing programs and the euros saved in terms of reduced delinquency, and other positive outcomes such as employment, better adjustment, and so forth.

Fifth, initiatives to move toward "evidence-based interventions" have been made, but there are no large-scale interventions yet.

Sixth, the implementation and dissemination of proven interventions is hampered by the absence of a structure of training programs, documentation, intervention protocols, and other supports needed to disseminate and reach those willing to change practices. There is no national central Web site to which individuals can turn for the best sources of information. The implementation of such a site has the highest urgency.

Seventh, structural problems in the administration of effective interventions remain in at least two key areas: mental health needs for juveniles in institutions and needs of schools to deal with juvenile problem behaviors that disrupt the academic functions of schools and the safety of students and school personnel. In the past, attempts have been made to involve institutional personnel and school personnel in organizing and maintaining programs. It is debatable whether this strategy

is optimal because of time restraints, training and background deficits, and cultures that rightly aim to focus on other tasks (security in institutions and academic tasks in schools). Serious consideration should be given to alternative provisions for programs, such as the assignment of mental health services in institutions to alternative and better-equipped organizations supervised by a government mental health agency, and programs to prevent and reduce misbehavior and delinquency in schools to specialized agencies skilled at such tasks. In England, for example, mental health services in prisons have been transferred to the National Health Service, whose personnel are much better equipped than prison guards to deal with pressing mental health needs of inmates.

Eighth, progress has been made in the Netherlands to start a single longitudinal cohort study on developmental aspects of juvenile delinquency. Such research, however, can be best done with multiple age cohorts instead of a single age cohort, partly because research findings with the aid of an accelerated longitudinal design can be produced in a shorter time than is possible with a single cohort. Another major reason why multicohort studies are needed is to inform about changes in delinquency levels from one age cohort to other age cohorts and how such differences in levels are related to patterns of risk and protective factors. This is essential knowledge for an eventual better understanding of secular crime waves in communities, which after all are composed of the accumulation of offending levels of different age cohorts.

Ninth, increasingly, Dutch policy is concerned about the safety of its population (Boutellier 2002; special issue of *Justitiële Verkenningen*, July 2004; Wittebrood and van Beem 2004). While it is laudable to attempt to improve the sense of safety of whole populations, the bottom line is the reduction of violence in communities. The litmus test is whether government actions, combined with actions of others involved, can reduce violence to a significantly lower level.

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