BREAKING THE CYCLE

DAY TREATMENT FOR JUVENILE DELINQUENTS

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Breaking the cycle: day treatment for juvenile delinquents

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Aan mijn ouders,
Die zo trots zouden zijn geweest!

CHAPTER 1

INTRODUCTION

BREAKING THE CYCLE: DAY TREATMENT FOR JUVENILE DELINQUENTS

Why a day treatment program?

Juvenile delinquency has become a societal problem with a high priority on the political agenda in the Netherlands. The last ten years have shown a more than 200% increase of violent criminal acts committed by juveniles (WODC, 2006). This has led to both societal and political pressures calling for prolonged incarceration and compulsory residential treatment in order to safeguard society from these youngsters.

Nevertheless, empirical findings show that both plain detention and compulsory residential treatment as penal measures have negative consequences (e.g. learning antisocial behavior, losing parental support) and are related to high recidivism rates (50-55% after 2 years) (Wartna, Kalidien, Tollenaar, & Essers, 2006). Imprisonment has a criminogenic effect: incarcerated offenders end up in adult prison facilities more often than offenders who have been convicted for similar offenses without imprisonment (Nieuwbeerta, Nagin, & Blokland, 2007). Compulsory residential treatment, often applied to juvenile delinquents committing severe crimes, has other disadvantages: adolescents are placed in facilities often far away from their home environment and family so that parents cannot be involved in treatment. Generalization of the social skills learned inside the facility poses a major problem as well.

Another problem in the group of juvenile delinquents who commit more serious offenses and/or do so more frequently, is the high prevalence of psychiatric disorders (Doreleijers, Moser, Thijs, Engeland, & Beyaert, 2000). The most frequently occurring psychiatric disorders among juvenile offenders are ADHD, substance abuse, and internalizing disorders (Loeber, Burke, Lahey, Winters, & Zera, 2000). Especially ADHD has been identified as a risk factor for the development of antisocial behavior (Taylor, Chadwick, Heptinstall & Danckaerts, 1996; Loeber, Green, Keenan, & Lahey, 1995). This implies that for a majority of the juvenile delinquents in institutional facilities psychiatric care is needed during their incarceration, not only to reduce the risk of criminal recidivism but also because there is a medical need to treat psychiatric disorders. However, psychiatric care is often unavailable or inadequate (Grisso & Schwartz, 2003; Desai, Goulet, Robbins, Chapman, Mogdole, & Hoge, 2006).

Considering the disadvantages of both incarceration and residential treatment, there has been a call for aftercare programs (Algemene Rekenkamer, 2007), alterna-

tive sanctions, or care for juvenile delinquents instead of incarceration. However, for the more severe category of juvenile delinquents committing frequent and/or violent crimes, these programs seemed to be not intensive enough and recent results of these programs were disappointing (Nauta, 2008), demonstrating the need for other approaches.

Treatment alternatives should target most risk factors for the development of criminal recidivism, limit the negative consequences of peer influence, and intensify involvement of families. During treatment contact with the social network should be kept intact, reducing generalization problems. For these reasons forensic psychiatric day treatment can be considered a viable alternative to a correctional facility or residential treatment. Day treatment for juvenile delinquents should target the behavioral problems and psychiatric comorbidity of these adolescents, involve parents, and prevent dropout by motivating these youths. If one does not succeed in preventing juvenile delinquents from being incarcerated in correctional facilities or compulsory residential treatment, an increase of the frequency and severity of crimes committed will be the result. Therefore, to prevent more severe violent crime, the first priority should be on keeping juveniles within the community (Sullivan, Veysey, Hamilton, & Grillo, 2007).

This study investigates the effect of a family oriented, multimodal day treatment program for juvenile delinquents who have committed severe violent crimes and had been incarcerated. At trial they had been sentenced to day treatment. The outcome of the treatment group will be compared to the outcome of juvenile delinquents who were selected during detention on remand and who (a) did not receive mental health treatment after imprisonment but care as usual delivered by juvenile probation officers, or (b) were sent to a compulsory residential facility after detention on remand. Both groups had been sentenced to imprisonment and/or compulsory residential treatment or day treatment, which means this is a group of juvenile delinquents who had committed serious crimes. The subjects of the treatment group suffered from psychiatric comorbidity and major problems in functioning within the family and at school. The subjects of the control group suffered also from psychiatric comorbidity, the level of functioning within the family and at school has not been evaluated in detail at the start of the study.

The development of an evidence based day treatment program for juvenile delinquents with psychiatric comorbidity

Most studies concerning treatment of behaviorally disordered adolescents underline the necessity of multilevel intervention treatment, often distinguishing levels of society/community, family, and individual (Karnik and Steiner, 2007). Evidence of treatment effects of conduct disordered adolescents with large effect sizes supports the viability of treatment on (a) an individual level (e.g., problem solving, and cognitive self instruction training/aggression management), and (b) on the family level (e.g., parent management training, multisystem therapy [MST], as well as functional family therapy [FFT]) (Weisz, Jensen-Doss, & Hawley, 2006; Sukhodolsky & Ruchkin, 2006). At each level specific risk and protective factors need to be addressed. In setting up this day treatment program the following levels of intervention can be distinguished:

level	risk and protective factors	treatment mode
individual	**psychiatric comorbidity**	**assessment** **medication** **cognitive therapy**
	(lack of) social skills **aggression**	**social skills training and aggression management**
family	**(physical) conflicts** **communication and support** **problem solving** **parental skills**	**family therapy**

The day treatment program, which is the subject of this study (Slot, 1999; Bartels, Parker Brady & Doreleijers, 1999), embraces a family focus by introducing functional family therapy (FFT) (Alexander & Sexton, 2002; Sexton & Alexander, 2003) at the start of treatment. This means that the first phase of the day treatment has a family focus. The second part of the day treatment has an individual focus by (a) training individual skills and aggression management, and (b) assessing and treating psychiatric comorbidity (Breuk, Sexton, Van Dam, Disse, Doreleijers, Slot, & Rowlands, 2006). The day treatment program has a school and during the study a starting aftercare program after finishing day treatment to maintain changes and generalize the learned skills to the social environment.

FFT is a clinical change model consisting of three specific and distinct phases of clinical intervention. The specific goals of the model address risk factors within the family, protective factors, and skills within the family necessary to work effectively in helping to change juvenile behavioral problems. The goals in the early phases focus on engagement and motivation of the youth and his parents. Middle phase goals target building critical behavioral competencies for all family members. Final phase goals are generalizing and maintaining these changes. Outcome research in the US shows that FFT is effective in reducing recidivism between 26% and 73% of status offenses in moderately and seriously delinquent youths as compared to both no treatment and juvenile court probation services (Alexander & Sexton, 2002; Sexton & Alexander, 2003).

During the second phase of day treatment, attention was paid to psychiatric comorbidity by carrying out an extensive psychiatric assessment and planning psychiatric treatment if necessary by all team members (Doreleijers, Moser, Thijs, Van Engeland, & Beyaert, 2000). In practice, this meant psycho-education of both the adolescent and his parents, prescribing medication if necessary (e.g., methylphenidate in ADHD), individual cognitive psychotherapy, and/or social skills training. Although severe psychopathology will also be treated e.g. by medication, during the first phase of the day treatment program, within the FFT model individual treatment will be done only after family treatment. In addition to the focus on psychiatric comorbidity, individual treatment was aimed at reducing violent crime.

Since violent crimes were a characteristic problem in most juvenile delinquents in the day treatment program, reducing aggression became a more central target with the use of cognitive behavior therapy focusing on social skills development and aggression management (Kazdin, 1997; De Jonge, 1999; Dodge, 1986), and group training aimed at social skills, aggression management, and moral reasoning, designed according the principles of -the US evidence based- Washington State Aggression Replacement Training (WSART). In a large study in Washington State this group aggression training proved to be successful in reducing (violent) crime recidivism (Goldstein, Glick, & Gibbs, 1998; Barnoski, 2004).

From treatment to effect: Goals for the day treatment program

This study investigates the effectiveness of a family oriented multimodal day treatment program for juvenile delinquents who had committed severe violent crimes and had been incarcerated prior to the day treatment program. Their treatment outcomes were compared to juvenile delinquents who were selected during detention on remand and (a) did not receive mental health treatment after plain detention, but only care as usual delivered by juvenile probation officers after release, or (b) were sent to compulsory residential treatment after detention on remand. The subjects of the day treatment group suffered from psychiatric comorbidity and major problems in functioning within the family and at school. The intensive day treatment program had been indicated by a youth care agency as an alternative to residential treatment. The study investigates if the treatment goals of the day treatment program have been met. The main goals were:

1. Reducing out-of-community placement in order to prevent incarceration or residential treatment.
2. Reducing violent criminal recidivism by improving aggression management and lowering family conflict.
3. Reducing general criminal recidivism
4. Reducing comorbid psychiatric symptoms, especially internalizing symptoms and ADHD
5. Improving social functioning to attend school and/or work

Eight hypotheses

Follow-up data collection took place twelve months after the juvenile either finished the day treatment program or after detention on remand. The following hypotheses were examined:

Hypothesis 1:

After having completed the day treatment program, at follow up, more juvenile delinquents will live within the community with their parents/family or on their own, compared to juvenile delinquents who did not receive mental health treatment after detention on remand.

Hypothesis 2:

After having completed the day treatment program, juvenile delinquents will spend fewer days in a juvenile justice facility during the follow-up period, compared to juvenile delinquents who did not receive mental health treatment during follow-up after detention on remand.

Hypothesis 3:

After having completed the day treatment program, juvenile delinquents will commit fewer violent offenses during the follow-up period, compared to juvenile delinquents who did not receive mental health treatment after having left the detention center during follow up.

Hypothesis 4:

After completing the day treatment program, juvenile delinquents will commit fewer general offenses during the follow-up period, compared to juvenile delinquents who did not receive mental health treatment after having left the detention center during follow up.

Hypothesis 5:

After having completed the day treatment program, at follow up, more juvenile delinquents will attend school or work, compared to juvenile delinquents who did not receive mental health treatment after detention on remand.

Since follow-up measures targeted aggression, psychiatric symptoms and quality of family functioning were only available to the treatment group, hypotheses on the post treatment results for the day treatment program group could not be compared to the control group. This led to the following additional hypotheses for differences between the pretreatment and post treatment periods:

Hypothesis 6:

Aggression-related problems, as measured by self-reports of the adolescent and parent reports on aggressive behavior of their children, will be reduced after treatment compared to the pretreatment period.

Hypothesis 7:

ADHD and internalizing problems of the adolescents, as measured by youth self-reports and parent reports, will be reduced after treatment compared to the pretreatment period.

Hypothesis 8:

Family functioning will improve and especially family conflict will be reduced after treatment, compared to the pretreatment period.

Content of this thesis

The study started with the implementation of functional family therapy and a pilot study to compare youth self-report and parent report in the day treatment program. The implementation process and the pilot study will be described in the first two chapters. The eight hypotheses will be addressed in the following three chapters. In the last chapter of this thesis the general discussion will be presented.

Chapter 2: *The implementation and the cultural adjustment of functional family therapy in a Dutch psychiatric day treatment center*

This chapter reviews functional family therapy and the evaluation studies. It describes the process of transporting an American evidence-based family therapy (functional family therapy; Alexander & Sexton, 2002; Sexton & Alexander, 2003) into a psychiatric day treatment center for juvenile delinquents in Amsterdam. It examines whether functional family therapy could be successfully implemented in

settings outside the US, what adjustments were necessary to make the model suitable for the culture(s) of the Netherlands and if this could be done without changing the model of FFT itself (Journal of Marital and Family Therapy, 32, 515-529, 2006).

Chapter 3: *The validity of self-report questionnaires of psychopathology and parent-child relationship quality in juvenile delinquents with psychiatric disorders*

This study focuses on the validity of self-report questionnaires of psychopathology and parent-child relationship quality for juvenile delinquents with severe behavioral and psychiatric disorders, by comparing information derived from self-report questionnaires with information from parent reports (Journal of Adolescence, 30, 761-771, 2007).

Chapter 4: *Early dropout in a day treatment program as a predictor of recidivism among juvenile delinquents*

This study focuses on early dropout in a day treatment program as a predictor of recidivism among juvenile delinquents, by comparing one year recidivism of adolescents who completed the day treatment program and those who dropped out within three months (early drop out).

Chapter 5: *The effects of multimodal day treatment on aggression, psychopathology and family functioning of juvenile delinquents with psychiatric comorbidity*

This study aims to investigate whether forensic psychiatric day treatment was effective in reducing aggression, ADHD, and internalizing psychopathology, and whether it was able to improve family conflict management in juvenile delinquents with psychiatric comorbidity. This is measured by youth self-reports and parent reports before and after treatment.

Chapter 6: *Breaking the cycle: Preventing re-incarceration of juvenile delinquents through family focused day treatment*

This study aims to investigate whether a forensic psychiatric day treatment program is more effective in keeping adolescents at home in the community, preventing

re-placement in a correctional facility, reducing violent and general crime recidivism, and attending school or work after ending the program, compared to care as usual for juvenile delinquents after detention on remand.

Chapter 7: *General Discussion*

The last chapter contains a critical review of the main findings regarding the day treatment program. Outcomes concerning the prevention of incarceration, adolescents staying at home within the community, violent and general crime recidivism, attending school and/or work, aggression management and psychopathology of the adolescent, and conflict management within the family are considered. Recommendations for further study, clinical implications and suggestions for societal management of juvenile delinquency are discussed.

CHAPTER 2

THE IMPLEMENTATION AND THE CULTURAL ADJUSTMENT OF FUNCTIONAL FAMILY THERAPY IN A DUTCH PSYCHIATRIC DAY TREATMENT CENTER

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ABSTRACT

Due to the increasing severity of adolescent problem behavior, evidence-based practices are becoming of interest as an alternative to traditional treatment with the behavior problems of adolescents in juvenile justice settings. Despite interest in evidence-based practices, questions exist regarding whether or not evidence-based intervention models can be successfully transported to cultures other than those in which they were developed. This article describes the transportation process of an American evidence-based family therapy (Functional Family Therapy; Alexander & Sexton, 2002; Sexton & Alexander, 2003) into the service delivery system of a psychiatric day treatment center for juvenile delinquents in Amsterdam. The characteristics of Functional Family Therapy that make it cross-culturally sensitive are discussed. Results from the changes in service delivery suggest Functional Family Therapy can be successfully implemented in international settings with adjustments to make the model fit the culture(s) of the Netherlands without changing the model of FFT itself.

INTRODUCTION

In the Netherlands, as in most other countries, juvenile crime has become a major problem. While juvenile delinquency as a whole has not increased in the last 20 years, both self- report measures and official police records indicate that approximately 37% of juveniles admit to having committed a criminal act in the past year. In addition, there has been a 300% increase in the growth of violent criminal acts among this age group over the last 20 years (Boendermaker & Van Yperen, 2003). In response to the increasing trend of violent crime among adolescents and the accompanying rise in attention to adolescent behavior problems, juvenile delinquency has recently become a high priority in the Netherlands (Donner, 2005). As a result, both social and political pressures are calling for prolonged duration of punitive consequences (e. g., imprisonment) and residential treatment alternatives that remove youth from their families and communities in order to protect the community. This trend towards increased incarceration has continued despite research data documenting that both imprisonment (Van der Laan, 2001) and residential treatment are related to high recidivism rates (40- 50%). As an alternative to a justice based solution, a number of comprehensive treatment programs have been developed to provide an alternative to incarceration. These treatment programs aim to provide quality mental health care to juveniles (usually by means of individual based social skills training and anger management training) and/or families (traditional family therapy) by use of traditional cognitive behavioral methods. Unfortunately, these methods remain untested and unevaluated (Kazdin, 2003; Sexton, Gilman, & Erickson, 2005).

Because of the increasing severity of adolescent behavior problems, evidence-based practices are increasingly being adopted in community based treatment settings (Kazdin & Weisz, 2003). This trend is also occurring in communities in countries other than the United States. For example, evidence-based practices have become a major treatment focus to ameliorate juvenile behavior problems in the Netherlands. Following the publication of a national (WODC) report on high recidivism after imprisonment, the minister of Justice of the Netherlands (Donner, 2005)

asserted: "Punishment including more and longer sentences is not helpful. I am convinced that well targeted evidence-based interventions can diminish recidivism up to 25 percent." As a result, the ministries of Justice and Health asked the National Institute of Health Sciences (NIZW) to decide what would be the most effective interventions. To fill a need for evidence-based approaches, mental health service providers in the Netherlands have searched for well established and highly evaluated American-based clinical intervention models because of the strong results of multiple outcome studies. In 'The Right Help' NIZW (Boendermaker, 2005) concluded: 'Multi System Therapy and Functional Family Therapy lead to better functioning of the family and by this mechanism to an important reduction of recidivism compared to treatment as usual.' As in the United States, these models are appealing due to cost savings, improved outcomes, and the level of accountability that has been demonstrated in numerous clinical trials and evaluation research studies (Eliott, 1998; Sexton, Alexander & Mease, 2003).

Despite the interest in evidence-based practices, questions regarding the transportation of American evidence-based treatments to another country have, quite naturally, arisen. Two questions are most salient in this regard. One obvious concern is whether or not these models can be successfully transported to cultures other than those in which they were developed. The question here is whether systematic and manualized treatments can be culturally sensitive to the degree that they can be used in comprehensive mental health service delivery systems of other countries with different cultural assumptions and values. Certainly this question will ultimately be answered by documenting successful outcomes of American evidence-based treatments in non US treatment settings. However, it is also important to know whether these models can even be transported and adopted by treatment staff and treatment organizations in culturally diverse settings. It is only recently that the critical issues regarding effective dissemination and transportation have begun to be reported (Hoagwood, 2005; Schoenwald & Henggeler, 2002). In addition, there is growing interest and development in the diffusion of innovations and technology transfer (Fals-Stewart, Logsdon, & Birchler, 2004; Glantz & Compton, 2004). In addition, this issue is not unlike one raised in the United States when evidence-based programs

are transported to community settings with diverse cultural and ethnic clients. In fact, Hoagwood (2005) suggests that one of the major barriers to successful adoption of evidence-based practice are the gaps in knowledge about implementation and dissemination. These concerns reflect the issue of community adaptability raised by Eliott (1997) in the development of criteria for the initial Blueprints for violence prevention project.

The adoption of evidence-based practices is further complicated by differing modalities of treatment and systems of care that prevail in different cultures. For example, the current evidence suggests that a small number of family based intervention programs have the highest probability of success with the difficult problems of adolescents (Kazdin, 1997; Kazdin & Weiss, 2004; Sexton, Alexander, & Mease, 2003). However, in the Netherlands, services for these youths are carried out within traditional, psychiatrically based mental health treatment programs designed for multi-problem youth with both externalizing behavior problems and significant internalizing mental health issues. Thus, because of the culturally embedded assumptions and traditions of an individual focus of traditional mental health treatment, the adoption of a family focused treatment protocol can provide a significant challenge. Liddle and colleagues (2004) report a successful implementation of Multidimensional Family Therapy in a US day treatment setting in which systematic training resulted in sustained use of the family-focused treatment. Yet, the cultural tradition of psychiatrically oriented treatment that is exclusively individually focused adds further complications for the implementation of an evidence-based family treatment. In the Netherlands, if family treatments cannot be successfully integrated into the prevailing cultural tradition of psychiatric treatment settings for mental health care, their widespread adoption is unlikely. In addition, there are important concerns about the cultural barriers to evidence-based practices. In particular, there are increasing questions as to whether or not evidence-based practices are individualized enough to meet the specific needs of persons from different cultures (Hoagwood, 2005).

This article describes the initial findings of the transportation of Functional Family Therapy (FFT) (Alexander & Sexton, 2002; Sexton & Alexander, 2003) into the service delivery system of 'De Derde Oever,' a psychiatric day treatment center for

juvenile delinquents with behavioral and psychiatric disorders in a unique multi-ethnic community. While not a systematic study of the transportation process, a report on clinical outcomes, or a data based statement about cultural adaptability, this article provides perspectives on two important and, as of yet, unaddressed aspects of this process. First, can a traditional medically based psychiatric service delivery system in a non US culture be refocused into a family therapy based treatment facility? In this project, FFT was transported into a mental health center with the philosophy that 'the individual (disturbed) patient comes first'. Data representing the shift in services from individually and psychiatrically based to family focused indicates the trajectory of this transportation and documents that, with thoughtful and systematic attention, FFT as it was designed can fit into this culturally diverse treatment setting. In addition, data on the therapists' ability to conduct FFT with model fidelity suggests that the model can be successfully taught, replicated, and utilized by treatment staff. Second, the project provides preliminary reports of non-US therapists' responses to the cultural sensitivity of FFT and the degree to which the clinical model required adjustment to fit clients and staff. Finally, this project provides insight into a number of critical questions regarding adoption of US based family intervention models in other cultures. If current evidence-based family treatment models cannot be adapted to other cultures or into traditional service delivery systems, it needs to be highlighted now before significant resources are devoted to training and dissemination activities. Thus, our goal is to contribute to the critical dialogue on internationally based implementation of evidence-based family treatments and to lay the ground work for future transportation of evidence-based models.

Context: Need for a family-based program for juvenile delinquents in the Netherlands

In the Netherlands, Juvenile Criminal Law provides both punishment and re-education measures for juvenile offenders. If juveniles are first offenders or commit minor criminal acts, law-enforcement can choose to engage them in Community Services. In case of repeated offences or severe criminal acts, the police will send the juvenile to the Public Prosecutor who can dismiss the case, order extra measures to

be carried out under surveillance of the juvenile probation officer (e.g., community service), or order the juvenile to appear in court. At trial there are several alternatives open to the magistrate: community services for several weeks to months, imprisonment (maximum sentence for juveniles under 16 is one year; juveniles from 16 to 18 years can receive a maximum of two years), or forced residential treatment for two to six years in a Juvenile Institution of the Ministry of Justice. The court can also decide on additional measures to be carried out, which may include forced participation in a treatment program.

Research in the Netherlands (Doreleijers, 1995; Vreugdenhil, 2003) suggests that juvenile delinquents not only have externalizing behavior disorders, but also internalizing disorders (i.e., depression, anxiety), or even more severe psychiatric problems such as psychosis, self-mutilation, and suicidal tendencies. Doreleijers (1995) provided evidence that suggests that 77% of juvenile delinquents have one or more psychiatric disorders (as based on DSM classifications), which is six to seven times the prevalence of psychiatric disorders among juveniles in the general population.

Since the vast majority of juvenile delinquents are facing psychiatric disorders, four mental health institutes within the Netherlands initiated the development of treatment programs containing social skills training and anger management therapy – all based upon cognitive behavioral therapy programs. De Derde Oever, a department of a child and adolescent psychiatric center in Amsterdam, noticed that despite clinical and empirical evidence that suggests family based treatments are the 'treatment of choice' for most externalizing behavior disorders (Kazdin, 2003; Sexton, Alexander, & Mease, 2003), none of the primary treatment centers in the country had a family intervention program in place.

In the Netherlands, family based treatments are not new. There is a tradition of utilizing Parent Management training, which is more oriented towards parents than children. Although Parent Management Training is evidence-based (Patterson, 1982), it is not a family therapy and has yet to develop an evidence-base with respect to the treatment of adolescent behavior problems. In addition, the family therapy tradition that did exist within the country was one largely focused on Contextual Family Therapy, an approach not specifically designed for externalizing behavior

disordered adolescents. As a result, this model was not frequently used as a primary treatment in mental health centers.

Thus, De Derde Oever concluded that the existing programs were not sufficient for the target group of juvenile delinquents and their parents/families that are the highest national priority. 'De Derde Oever' decided to develop and implement a family therapy within its adolescent psychiatric day treatment center, a treatment that incorporates psychiatric care and monitoring, with structured daily school and social activities that stress pro-social behavior. In systematic literature reviews of child and adolescent treatment programs, Kazdin (1997) and others (Sexton & Alexander, 2004) describe two evidence-based family therapy approaches: Functional Family Therapy and Multi Systemic Therapy (Henggeler, 1998). Both were appealing given the growing belief that family therapy approaches hold great promise for adolescent externalizing behavior disorders whether in juvenile justice or mental health treatment settings (Sexton et al., 2003).

The choice of FFT was based upon previous research outcomes, a match with the treatment population, and a philosophical fit with the prevailing values of the agency. In addition, De Derde Oever decided upon FFT because its' model principles were consistent with the overall philosophy of the agency, and the demonstrated success in transporting the model with fidelity to varied communities with ethnically diverse clients in the US (Sexton & Alexander, 2003). While other evidence-based family treatment models may share one or more of the points listed below, the staff and administration of the day treatment found FFT to more comprehensively fit the prevailing values important of the staff of the clinic. For example:

- FFT consists of a 'family oriented viewpoint,' directed at changing the functioning of families. The families visiting the day treatment center often have severe relational problems and are in need of intervention. While other models (e. g. Multidimensional Family Therapy, Brief Structural Family Therapy) are family focused, the FFT 'family first' philosophy (Alexander & Sexton, 2002) was particularly appealing because it is a model that works with exclusively with whole families.
- FFT fits a mental health institute because of its documented use as a model clinic family therapy takes place inside the institute and its therapeutically focused treat-

ment opposed to a family based integrative case management interventions (e. g. MST).

- The theoretical framework of FFT is more compatible with Contextual Family Therapy, the therapeutic intervention that was already used inside the day treatment center than other evidence-based family approaches. The theoretically compatability of FFT and Contextual Family Therapy (i. e., thinking of behaviours has only having meaning within relational contexts) thus enhanced the acceptability of FFT to the staff.
- Functional Family Therapy has a 'therapeutic focus' (i. e., primary focus on change mechanisms within therapeutic relationships) and is much more like traditional family therapy (e. g. goal of redefining the presenting problems as a family focused problem in the generalization phase), which appealed to the professional staff.
- FFT stresses the importance of systematic adherence to the model. As a result, different measures from multiple sources that are empirically related to outcome have been developed for clients, therapists and supervisors. Adherence studies (Sexton & Alexander, 2002) conclude that: "Highly competent and competent therapists have lower recidivism rates than borderline, or not competent therapists" (Barnoski, 2002, p. 3). Thus, the systematic quality improvement and monitoring system of FFT dissemination protocols was an important feature for the Center.

Functional Family Therapy

Functional family therapy (FFT) is a family-based empirically supported treatment for adolescent behavior problems (Alexander & Sexton, 2002; Sexton & Alexander, 2003). FFT is a multi-systemic approach focusing on relevant systems at several levels (individual, family, and community), and all domains of client experience (biological, behavioral, affective, cognitive, cultural and relational). FFT integrates different theoretical backgrounds from behavioral, systemic, cognitive, and intra-psychic therapies. It also integrates multi-system clinical assessments and relationally based intervention techniques as an important part of the treatment. This therapy has a tradition of systematic dissemination protocols that include ongoing training and supervision.

FFT was developed during the late 1960's and early 1970's (Alexander & Parsons, 1973). The first treatment manual was developed as part of the Blueprints for Violence Prevention program (Elliot, 1998). The Blueprints program was based upon a systematic and independent review of over 1,000 published programs for youth. The review resulted in the identification of only ten programs that met the criteria of being effective, transportable, and adaptable to unique community settings (Eliott, 1998). In addition, FFT is well founded in outcome research with over fourteen published clinical trial studies, comparison group studies and evaluation results which suggest that, when implemented properly, FFT has favorable outcomes in reducing recidivism compared to treatment as usual (probationary services; FFT: 11%- 26%; probation: 38%-50%). Simultaneously, FFT ameliorates family functioning, improves communication and diminishes negativity between family members.

As a clinical model FFT is both structured and flexible: structured by offering a fixed sequence of treatment strategies, flexible as it requires sensitive clinicians to carefully set out individualized treatment strategies (Alexander & Sexton, 2002; Sexton & Alexander, 2002). In the first phase, called the engagement and motivation phase, the main goals are to (1) create a 'balanced' therapeutic alliance, (2) reduce blaming and negativity and (3) redefine the problem as a problem with a family focus. During the engagement and motivation phase there is an ongoing relational process between therapist and clients involving both validation of the clients' perspective and reframing by the therapist (i.e. change of meaning, reducing negativity and blame, challenging the family to change, and linking family members together [family focus]). The reframing statements are checked and – after being agreed upon by all family members- adjusted and reformulated by the therapist. Reframing as such is much more than a set of cognitive techniques; it is viewed as a dynamic relational process between therapist and family. As a result of successful reframing, a balanced therapeutic alliance emerges, with an equal level of engagement of each family member towards the therapist. In order to be a successful FFT therapist, relational skills are of major importance during this phase of treatment.

In the behavior change phase, the main goals are to identify relevant risk factors as targets for change, and to identify an implementation plan for change. It is impor-

tant that behavior change plans match the unique family, each of its members and their relational functions. Interventions focus on common risk factors and include: communication training, problem solving, negotiating, parental skills training and conflict management. In this phase the therapist applies more structuring skills.

In the last phase, the generalization phase, goals are to generalize, maintain, and support change by incorporating community resources. The primary aim is to encourage family members to solve their problems using the identified strengths and skills they have learned, and to reduce dependence on the therapist. Interventions are set out to help the family generalize across different situations, be more efficacious in overcoming setbacks or relapse, and use community resources. Attention must focus on motivating the families to continue to attend sessions again after family life has improved. At the same time it is important that the therapist supports the family to rely on their own capacities.

Moving from an individual to a family focused practice

The majority of mental health centers in the Netherlands are dominated by traditional treatment protocols consisting of individual focused cognitive behavior-oriented approaches with a psychiatric foundation (Doreleijers, 1995; Vreugdenhil, 2003). This was not different at 'De Derde Oever.' The primary program for at-risk youth, a day treatment program, consisted of a traditional group therapy program, carried out by socio-therapists and a psychotherapist/behavior therapist with psychiatric care. A range of individual therapies (cognitive behavioral therapy, creative therapy, music therapy, sport), education (school), psychiatric assessment and, if necessary, medication were applied as well. The day treatment normally lasts for 6-11 months and is divided into three phases in which privileges can be earned towards release. The day treatment center had already implemented evidence-based elements in 2000: the use of cognitive behavioral therapy during social skills training and aggression management and the development of a thorough phase oriented and goal-directed program. Nevertheless, because of the push to develop and implement evidence-based programs the center decided to enhance the ongoing day treatment from an individually based program, to a more family based treatment program. It

was clear that such a change would be significant for both clients and staff. Thus, a step-by-step implementation process needed to be developed for the treatment team as a whole.

Contextual family therapy had been used as an adjunct to the more individually based treatments provided by the agency. During the original course of the day treatment program, a family therapist invited parents to participate in treatment only irregularly. Working with parents was considered a family therapist's task and was thus isolated from juvenile treatment. The primary family treatment was Contextual Family Therapy. Unlike in the United States, Contextual Family Therapy in the Netherlands has been widely practiced. Family therapists can opt for training in Contextual Family Therapy and about 10% of all family therapists in the Netherlands consider themselves Contextual Family Therapists. Contextual Family Therapy was a model that had been trusted and easily adopted by the family therapists in the agency.

THE TRANSFORMATION PROCESS: FROM AN INDIVIDUAL TO A FAMILY FOCUS

De Derde Oever is a mental health center for juvenile delinquents with comorbid psychiatric disorders, with a strong psychiatric and medical orientation to the services provided because of the severity of the disorders of clients served. The mere introduction of a family model in this 'culture' posed a challenge for a number of reasons. Medical approaches are based on 'diagnosing' individual risk factors in both juveniles (mental health problems, influences of peers, etc.) and parents (relational conflicts, parental psychiatric disorders, family history, level of education), while family approaches like FFT aim to reduce blame by incorporating more of a relational process focus which redefines the problem as a family problem (as is necessary in FFT), reducing blame while maintaining responsibility, and focusing on client and family strengths. Overcoming this challenge required the development of trust between the family therapy consultant, local family therapists and the psychiatric directors of the treatment facilities. This type of strong relational alliance

was developed by means of careful and patient development of a joint vision of the project, carried forth with a purposeful focus on creating a solid partnership during the implementation of FFT.

After the identification of FFT as the model to be used, care was taken to introduce the staff to both the clinical model and its developers prior to implementing a wide scale training process. An early pilot was undertaken to learn about FFT, see how it works, and start a pilot application in the mental health system of the Netherlands. The pilot involved presentations of the model, case discussions, and clinical demonstrations using FFT with Dutch families by one of the FFT model developers (Sexton). This slow and collaborative process also allowed for the critical relationships between staff and FFT model developers to be established. As a result of these relationships, trust, credibility, and familiarity with everyone involved was developed, allowing the project to proceed. One of the model developers provided these early trainings and worked with Dutch families to test the potential replication. The outcome of this patient process was a strong psychological commitment to the treatment model (FFT) and a strong partnership between the trainers, agency and staff.

Among the first challenges in transforming the center into an evidence-based practicing site was obtaining staff support and acceptance of the implementation of an evidence-based model into a system with a pre-existing model currently used by the staff. Although Contextual Family Therapy (Nagy & Kresner, 1986) has a theoretical background and implies a model for clinical assessment and interventions, it lacks the tradition of empirical research. For that reason, Contextual Family Therapy could not be used as the core of an evidence-based therapy for treating families of juvenile delinquents. However, implementing an evidence-based US model required that it 'fit' with the prevailing Contextual Model, as this 'fit' was important in order to engage the staff to accept and support the implementation of FFT.

Overcoming this challenge required attention to the relational impact of bringing in a different family therapy rather than staying with what was already in use and preferred by staff. The challenge was overcome by discussions of similarities and differences between Contextual Family Therapy and FFT. Three central tenets in Contextual Family Therapy provided a common link with FFT that became relevant

to the implementation of FFT. First, Contextual Family Therapy asserts that the loyalty between different generations of (biological) family members cannot be broken. If a child is forced to break their loyalty towards one of his/her parents, symptoms will appear (e.g. emotional problems). In theory this is referred to as 'split loyalty.' A second central theme in Contextual Family Therapy is the so-called 'relational ethics.' This implies that a child has the right to receive (unconditional) parental care, love and guidance. As caring for another person provides a way to 'earn' loyalty ('obtained loyalty'), a child might display behavioral attempts to take care of his/her parent(s) for some time, even though the child has the right to be cared for themselves. When a child has been neglected, abused, has taken on too many parental responsibilities ('parentification'), or is forced to be disloyal to one of the parents, a child will 'build destructive right' posing a major problem within the family. Contextual Therapy uses the term 'destructive right' to illustrate that parents, who suffered from childhood neglect themselves, claim the 'right' to be taken care of by their own children. Instead of being balanced educators they are trapped in reversed roles.

Clinical interventions practiced by Contextual Family Therapy also provide common ground. For example Contextual approaches include intervention that focus on many-sided coalition (the therapist supports all individual family members), taking action (instead of only talking about emotions and/or what should be done), recognition of all investments family members have made to help each other instead of stressing what one has left to do, and reducing blame. The principles of therapeutic intervention in Contextual Family Therapy are composed of components similar to the principles of FFT. For example, 'recognition' is comparable to 'validating' in FFT, 'reducing blame' is a primary goal in the engagement/motivation phase of FFT, and 'taking action' is interchangeable with 'behavior change.'

Despite the similarities, there are important differences between FFT and Contextual Family Therapy. A major difference lies in Contextual Therapy considering loyalty of family members to each other and to other generations as one of the many influences on relations between family members, whereas FFT places much more emphasis on family dynamics as observed during the engagement/motivation phase. Furthermore, during the Contextual Therapy intake phase, family history is assessed,

typically inviting more family members (i. e. multiple generations of the family than FFT would. In addition, success in FFT is linked to close adherence to the model (Barnoski, 2002).

Upon establishing the similarity of model principles (between FFT and Contextual Therapy) it became important to also use the talents, knowledge and expertise of the in-house Contextual Therapy supervisor. During the early pilot the Contextual Supervisor (van Dam) received specific and individual training in order to become a clinical leader and advocate of FFT for the team. Her ability to adopt FFT along with the FFT model developer's ability to successfully use FFT with Dutch families helped demonstrate the viability of the model in the Dutch culture. This strong collaboration in addition to the respect of pre-existing skills and knowledge was critical in gaining acceptance of FFT by the staff within the organization.

The development of a treatment delivery system that matched both the needs of De Derde Oever and at the same time supported the principles and clinical protocols of FFT was also a collaborative process. One of the FFT model developers worked together with the primary treatment staff over the course of 6 months in collaborative discussions that 'co-constructed' a unique day treatment model. This collaborative process resulted in a number of subtle adjustments to the model. Three areas of adjustment quickly arose: 1) development of an integrated day treatment and FFT model, 2) adjustments generic to implementing a family based model into a primarily medical treatment environment, and 3) adjustments to the FFT clinical model because of different cultural settings.

Given the individual focus of the treatment setting, slow steps were taken to include parents in treatment and to integrate other staff (socio-therapists and Day Treatment staff) into a comprehensive system focused on a family approach. Since both juveniles and parents (often) lack basic communication skills and/or are engaged in serious conflicts, we started with motivating all families to participate in a Parent Management Training course already in use at the center (Patterson, 1982). For some parents, their educational potential was diminished by their own psychiatric problems, relational conflicts, or the neglect and maltreatment they had suffered in childhood themselves. When necessary they received individual therapy

sessions. In addition, the family therapist started participating in parental assessment and treatment from the onset of the program. During intake a family focus was constructed and parents were motivated to join the day treatment. The juvenile's mentor/socio-therapist kept a weekly parental contact in order to exchange information about the juvenile's functioning at home as well as within the day treatment center. This resulted in a more balanced alliance between the juvenile and his mentor on one hand, and the juvenile and his parents on the other hand. During treatment progress conferences, both progress and emerged problems of juveniles and their parents were discussed and adjusted in the treatment plan. Furthermore, it was deemed necessary to include a culturally diverse staff to meet the heterogeneity of the treatment population. More than 35% of youth in the Day Treatment program were Moroccan. As a result, a Moroccan family worker joined the team.

The integrated system that emerged from these discussions began with an intake session attended by juvenile, parent(s) and probation officer, and conducted by two staff members (a psychologist or psychiatrist and a family therapist), in order to receive an accurate description of the problem by both the juvenile and the family. Furthermore both parents and the juvenile were engaged and motivated to join in a family based treatment, starting within 1 – 2 weeks of intake and carried out by another family therapist. In the two following sessions with the parent(s), educational skills, partner relationship, psychiatric disorders of the parents themselves, and family history (including loyalty and parentification) are dealt with. The two sessions with the juvenile helped assess the mental health problems of the juvenile.

Following the Center intake, Functional Family Therapy began with the engagement/ motivation phase. Only severe mental health problems of the juvenile or the family members that cannot be postponed to the generalization phase are dealt with immediately (e.g. depression or psychoses of the juvenile, alcohol abuse of a parent with a risk for immediate danger, or violence in the family). As the engagement/motivation phase and the following behavior change phase of FFT last only two to three months, individual treatment of both juvenile and parent(s) can only first be started – if necessary - while FFT fades out, during the generalization phase. Family therapy has a much stronger impact during its different phases (1) when it is not being

counteracted by individual sessions of clients, in which clients escape working in the family by complaining to an individual oriented therapist and (2) the therapeutic alliance of the family therapist with one of the family members cannot be threatened.

Training and Supervision

Once comfortable with the value and relevance of the FFT model and the new treatment delivery system, Functional Family Therapy training began. Training followed the US national training standards for FFT (Alexander et al., 2000; Sexton & Alexander, 2004) and consisted of three workshops done by the FFT model developer over the course of a year. In addition, the site's family therapist (van Dam) provided weekly individual and group supervision. Her work was, in turn, supervised by the FFT model developer. The challenge in this training protocol was to maximize treatment integrity while at the same time taking into account the Dutch culture and, more specifically, the unique treatment delivery system. As with other implementation challenges, potential cultural problems were overcome by a collaborative dialogue that helped the staff fit their work to FFT and helped the FFT model developer learn the unique characteristics of the Dutch culture. What was important was that as the FFT developer learned more about the culture and was able to 'match' his approach to the culture and the structure of the training program, and treatment could remain as it is in the US. This suggests that it may be less of 'what' is done and more important 'how' it is implemented that required a significant amount of discussion between the mental health center staff, the resident psychiatrist, and the model developer/trainer.

OUTCOMES OF THE CENTER TRANSFORMATION

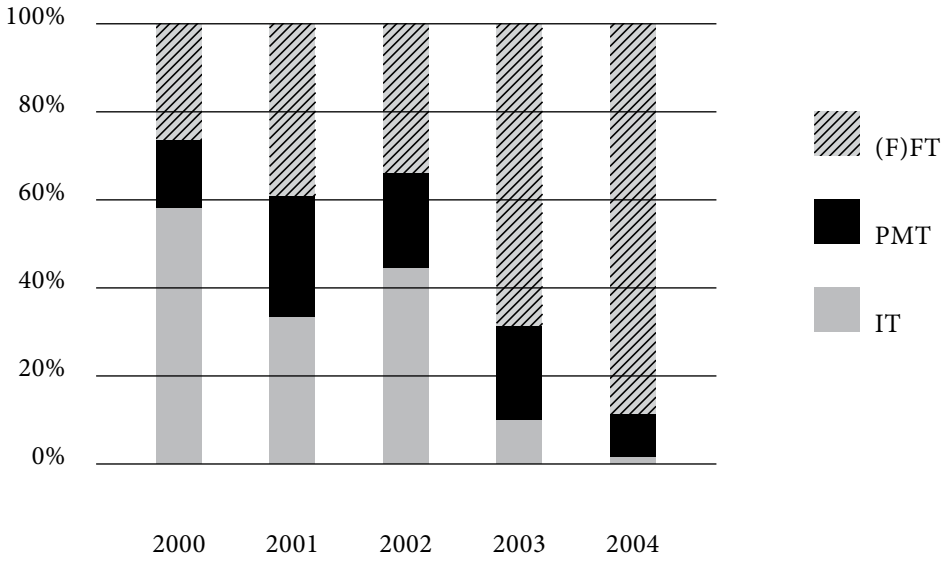
Three outcomes mark the success of implementing an evidence-based program: client behavior changes, the delivery of services consistent with the program, and measures of successful model implementation (Sexton & Alexander, 2004). Given the early stage of implementation client outcomes are not yet available. However, the transformation of this individually focused psychiatric-oriented day treatment pro-

gram can be tracked by measuring the number of family sessions (pre and post model implementation) and the adherence to the model by therapist. The latter measures are particularly relevant in this case. An increase in family sessions (as compared to individual sessions) would suggest that the system was successful in transforming itself from a psychiatrically oriented individual system to a family therapy focused one. Measures of model adherence suggest that the model is culturally adaptable and potentially effective given previous research that has linked model adherence with client outcomes in FFT (Barnoski, 2002).

Figure 1 illustrates the change in service delivery modalities from 2000 to 2004. The graph shows the relative percent of individual, parent management, and family therapy sessions as a percentage of the total number of session delivered by the center. In 2000/2001 the primary modality of treatment was individual therapy; this is not surprising given the orientation of the Center at that time. In 2002 the Contextual Family Therapy model with Parent Management Training was implemented with a moderate degree of success. Because of the issues noted above, it did not become a primary treatment modality. In 2003/2004 FFT became the primary model of treatment, with treatment focused on whole families as the most frequently used intervention. Parent Management Training is provided sometimes during the generalization phase of FFT and individual sessions with parents are now only rarely provided. These results would suggest that FFT was implemented in a way in which it became a central treatment as a result of the systematic implementation process described above.

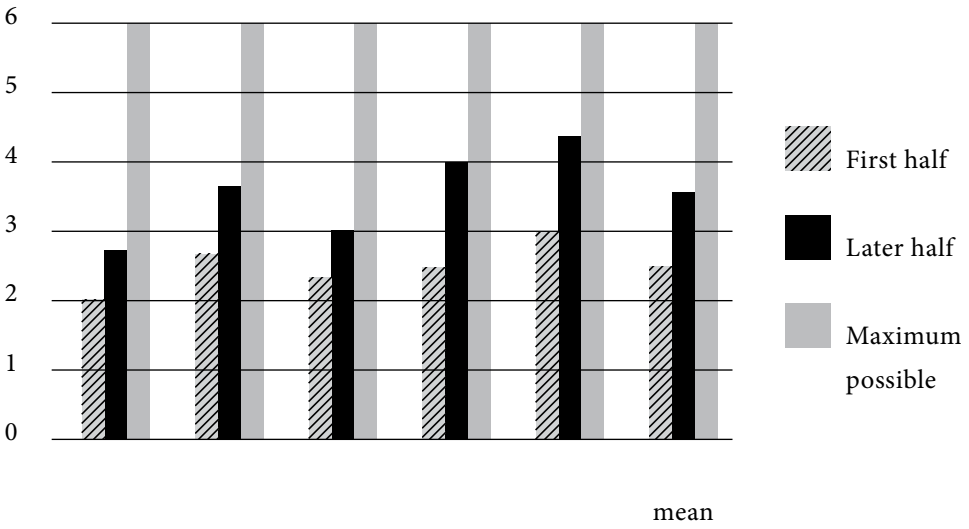
A second measure of success is the degree to which the therapists trained in FFT were able to successfully replicate the model. This is a particularly important outcome because it demonstrates that FFT can be adopted, learned, and successfully practiced in another culture and treatment delivery system. Model adherence was measured using the Therapist Adherence Measure (TAM; Sexton & Alexander, 2004). The TAM is a supervisor rating of therapist model adherence. This measure has successfully been used in US FFT studies and has been empirically linked to client outcomes i.e., Barnoski, 2002. A Dutch clinical supervisor was trained in the TAM system by one of the FFT model developers using the same supervision model

FIGURE 1. PERCENTAGE OF TREATMENT SESSIONS IT, PMT, FFT CATEGORIZED BY YEAR



as that used by Barnoski (2002); Sexton, Alexander, & Gilman (2004). Adherence ratings on the TAM range from 0 (low) to 6 (high) across all clients on the therapist's case load. Rater reliability was developed through the individual supervision of supervision noted above. In the Barnoski study (2002), therapist adherence ratings between 2 and 4 were typical of first year FFT therapists. Figure 2 illustrates the change in model adherence over the course of the first year of practice. During that time the Dutch FFT therapists moved from a low to a high average rating of adherence to the FFT model across all clients. These results suggest that across the diverse client ethnic backgrounds and mental health disorders, therapist were able to successfully implement FFT as it was designed.

FIGURE 2. MEAN ADHERENCE SCORES PER THERAPIST DIVIDED OVER THE FIRST AND LATTER HALF OF EVALUATIONS



Source: Supervision ratings at CSS (Clinical Services System)
Score 0-1 = low; 2-4 = average; 5-6 = high
First half of evaluations = first 3 months
Latter half of evaluations = last 3 months

These data suggest that the systematic transformation of an individually focused psychiatric institution to a family based treatment center can occur. We suggest two principles were at the source of this change in focus. First, the systematic process of implementing the model helped staff adequately adjust. Second, a specific model with specific clinical protocols helped the staff achieve success in implementing the model. Finally, the model chosen fit within the existing culture of the agency. These findings are similar to the result of the Center for the Study and Prevention of Violence (CSPV) Blueprint program transportation project (Mihalic & Irwin, 2003).

Cultural adjustments of FFT to the families in the Netherlands

One of the goals of this project was to identify the cultural adjustments necessary to transport a US family therapy model to the Dutch system. Although the USA and the Netherlands differ in size, they share some of the same cultural background of the so-called Western world: the value of the individual, the 'standard nuclear family' (father, mother and two children), and the major religion of the Christian Church. As in the USA, the Netherlands consists of a multicultural society, with many single-parents or newly formed families after suffering divorce, and a diminished role of church. There is an increasing multi-ethnic profile in the Netherlands consisting of large Moroccan, Surinamese, and Turkish groups that have immigrated into the country and broche part of the citizenship. Thus, cultural sensitivity is a critical variable in the successful transportation of FFT.

Use a modification of the task analysis approach (Heatherington & Friedlander, 1990), the FFT model developer (Sexton) and the treatment staff identified a number of potential cultural differences that may impact both the delivery of FFT. These differences will serve as the focus of specific future study. The cultural differences were identified from a systematic review of the cases to which FFT had been applied during the first year of the project. The adjustments that had to be made are described for (a) the engagement/ motivation phase and (b) the behavior change phase. As the Netherlands is a multicultural society, adjustment for both the Afro Dutch people (Suriname) and Arab Dutch group from Morocco are mentioned as well. The analysis was not intended to change the model or the major process outcomes (phase goals), but instead where focused on the potentially unique strategies that might need to be used to reach the phase-based goals within this culture.

It is important to note that FFT was well suited for this adaptation because one of its core principles is 'matching to' to the unique family system. This means that each client is viewed as an individual and unique person. In particular, the FFT principle of 'matching to' clients is imperative in order to be culturally sensitive in meeting the needs of the African Dutch families originating from Suriname, and the Arab Dutch families originating from Morocco currently residing in Amsterdam, the multi-ethnic capital of the Netherlands. The principle of 'matching to' suggests that therapists'

pursue the goals, principles, and primary interventions of the model, but do so in a manner that 'fits' the family and individual. A specific description of how the model was adapted while still maintaining its core principles are described below.

Cultural adjustments in the engagement and motivation phase. At the core of many of the common treatment approaches in the US is the idea of support and empathy. While important, the first author noted that this approach often results in the therapist complimenting his or her clients often, welcoming each family member, sometimes more than once, and engaging in a significant amount of small talk to become acquainted. In the Netherlands, such frequent and overt support and empathy does not fit the traditional cultural mores. For example, it is certainly appropriate to welcome your clients, but not to do so repeatedly. Further, it is certainly appropriate to be understanding and supportive, but not too frequently. Either of these behaviors would be interpreted as both superficial and artificial. To adjust for this cultural difference during the engagement/motivation phase of FFT the amount of 'small talk' at the start of the session is diminished and therapists move more quickly to attending to the presenting problems. While the discussion of 'problems' is done in non-blaming ways, in the Netherlands a direct and specific focus on why we are here (e. g., problems) is appropriate, expected and necessary to match to cultural expectations.

Furthermore, within the Afro-Dutch group from Suriname, many families consist of a (strong and authoritative) mother and her children. These are generally hard-working women who can be difficult to motivate to come to all sessions. If they attend the sessions however, it is possible to address them in an open manner, shortening the engagement/ motivation phase. An advantage of working with such clients is that the mothers are very influential to their sons who respect their mothers in general very much. A disadvantage is the fact that as soon as the occurring problems are being lifted, (and they often do when the mothers take their position as educator), they go back to work, forget being a mother, and fail to attend the sessions.

In the FFT model, sensitivity to the cultural differences required an adjustment in the way in which reframing was accomplished. According to the reframing intervention in FFT, the first step is to validate the family member's position, emotion,

concern or issue followed by a reattribution that reduces negativity, blame, and the individual focused attention (Sexton & Alexander, 2004). Although the validation part is very important, it was critical to be careful not to become too complimentary as it may obstruct forming an alliance with clients in the Netherlands. For clients in the Netherlands a validation remark is valued more if the therapist combines it with a challenge. For example: "I can see you really feel worried about your son and are hurt by his behavior. Nevertheless it's a challenge not to shout at him and to learn another way to show your commitment." For the Afro-Dutch Suriname families, convincing and confronting language was necessary to gain the credibility and alliance to result in the mother (parents) attending family therapy sessions. By being upfront in the early phase of treatment, engagement is often reached quickly, but obtaining motivation to stay in treatment and allowing support from a therapist is much harder. One might speculate that those mothers have learned to survive on their own without much support. These adjustments are well incorporated within the FFT model. As currently designed (Sexton & Alexander, 2004), reframing is intended to be a relational process that matches to the family in a way that results in the desired feelings of alliance, motivation, and engagement in the first phase of treatment.

A cultural challenge met when working with the Arab Dutch group from Morocco is the language barrier. Even if a team member speaks Arabic, recognizing that there is a lot of shame by both juvenile and parents' regarding the youth's criminal acts is important, as family honor is crucial in their culture. In addition, in most cases families have suffered many prejudices from Dutch society and, sadly, also from Dutch authorities. The mental health system as such is also considered to be a Dutch authority and therefore not trusted by some of the Arab-Dutch people. Home visits with a native speaking team member have proven to be a valuable solution to this problem.

In order to adjust to this culture, the engagement/motivation phase is considerably longer. Before active reframing, a lot of small talk and polite conversation is necessary for the therapist to be well received, and permission should be asked to interfere in family matters as an outsider. To engage these families, it is important to

validate both parents instead of allowing one parent alone to do all the negotiating. Parents often feel powerless and ashamed about losing authority over their children. The challenge is not to obtain motivation for cooperation, but engagement and alliance with both parents and children in a respectful way, so that the parents maintain their 'one-up' position in the hierarchy.

Cultural adjustments in the behavior change phase

In the behavior change phase of FFT the focus is on the development of within family behavioral competencies with the aim of building family protective factors (Sexton & Alexander, 2004). The second adjustment to the model was related to determining a culturally sensitive means for effective instruction of the clients on how to change their behaviors. Typical FFT behavior change sessions in the US showed that even if there was a well-formed alliance, the critical instructions for behavior change were not direct enough in order to be useful in Dutch settings.

In the Netherlands, after a strong alliance with the family members is met, it is best to give straightforward advice about what to change. For example: If a father is very worried about his son and is showing this by shouting at him frequently, a therapist in the Netherlands would start by engaging and reframing the hurt. If the reframing is accepted by the father, the therapist would not repeat over and over that the father is hurt. Rather, he would state directly that he or she understands the father's position, but that it is really not helpful to shout, and then assist him in finding alternative ways to show his hurt. In general, in the Netherlands, the FFT therapist acts more as a teacher when compared to therapists in the United States. When problems exist for Dutch parents, for example because they have forgotten to take a firm role as a parent and confuse communication skills with their responsibility to set rules and limits for their children, it is permitted for a therapist to be direct in sharing these observations and train them in effective parenting skills.

When seeing Afro-Dutch parents (often mothers) it is important to keep them motivated by being upfront as a therapist when they fail to attend sessions, as mentioned before. But, since parents of Surinam juveniles have no problem being an authority for their children the therapist should be careful to respect this authority. For

the Moroccan families the behavior change phase is relatively short once a balanced alliance is reached with each family member. The behavior change phase is relatively 'easy' as the juvenile considers it culturally acceptable to acknowledge the authority of his parents and the parents are very willing to accept and execute the advice of the therapist.

Adjustments to the implementation of FFT of in the Netherlands

Functional Family Therapy has been successfully implemented in over 130 different communities in the United States following a systematic protocol of implementation (Alexander, Pugh, Parsons, & Sexton, 2000; Sexton & Alexander, 2005). These communities certainly reflect a dramatic diversity representing rural and urban settings, along with ethnically diverse clients and therapists. International implementation of an American-based model of family therapy required a serious consideration of the method and technologies of model implementation. Consideration of these issues is essential given that many (Elliott, 1998; U.S. Public Health Service, 2001) consider implementation to be among the most critical aspects of evidence-based practices. Without successful implementation, the potential clinical value of any model of treatment will not be realized. The implementation of FFT is based on direct training by the model developers (Alexander & Sexton, 2002); follow up instruction by a trained FFT consultant, and ongoing on-site and telephone supervision (see Alexander et al., {2000}, for a detailed description of the systematic implementation protocol).

Moving FFT to the Netherlands required consideration of the long distance and its impact on training and the language barriers between trainer and trainee. Language barriers in clinical supervision were also significant barriers. Although the team members speak adequate English, supervision was prone to the risk of missed subtleties. Therapy is, by its very nature, symbolic and culturally bound. To overcome the language barrier, it was critical that the FFT trainer and the local experts work together to develop a way to overcome the missed meanings in the language translation. This problem was tackled by installing two of the authors as co-supervisors and stressing the importance of the team's commitment to cooperation efforts

with the supervisor. As a result of language barriers, training was slower and required significant work on the part of the trainer to become familiar with the team and its language. Clinical supervision (e.g., through a one way mirror and video tapes of family sessions) required the team and the trainer to work together to share the intention and meaning behind the common words and language. In the end, the language barrier was used as a means for developing a working alliance between the trainer and the team that helped develop a sense of mutual respect and trust.

To ensure adequate implementation, four adaptations to the typical FFT implementation protocol were made. First, the Netherlands FFT team and the FFT clinical supervisor had regular phone supervision calls. Having a relationship already established between the team and the FFT supervisor made the use of phone supervision a viable technology for use in this case. Second, the long distance supervision and quality assurance was enhanced through the use of the FFT-CSS (Clinical Services System), a web-based clinical management system. The FFT-CSS is used by every FFT therapist at each site that implements the model. The web-based, HIPPA compliant system is a data management system that tracks service delivery profiles (e. g., session frequency, session type, dropout, no-show etc.), pre- and post-therapy client outcomes, and therapist adherence ratings (as conducted by the supervisor). In addition, the system requires the use of comprehensive FFT based progress notes that record the session goals, session accomplishments, reframes used, and relational assessments (see Sexton & Alexander {2004} for a more detailed explanation of these concepts). Use of the CSS allowed the FFT consultant to adequately understand the service delivery patterns of the team thereby being more able to provide clinical supervision. Third, implementation was enhanced by training of an on-site FFT clinical supervisor. The senior author travelled to the US and received advanced training to provide on-site clinical oversight of the implementation process. Finally, in order to provide culturally sensitive training, a FFT training tape of therapy sessions with a Dutch family was developed by one of the FFT model developers. The development of this tape allowed for team members and therapists to see FFT in use with a family of the culture in which it was being implemented.

DISCUSSION

De Derde Oever, a psychiatric treatment center for juvenile delinquents, is the first forensic treatment center in the Netherlands to systematically adopt an evidence-based family treatment model for delinquent adolescents. The desire to implement an evidence-based practice stemmed from the need to confront a rising problem among behavior-disordered youth in the Netherlands, as well as the need to provide an accountability based clinical intervention program. As in other professional cultures family therapy is not regarded as the treatment of choice. Within the Dutch forensic field, the leading opinion is that the success of juvenile treatment depends on the cooperation of the family, thus working with parents is very important. However, it is generally considered that "parents are not motivated," and "do not show up when you organize an evening for parents once a month, so it will not be possible to see them weekly."

Over the course of one year, Functional Family Therapy was integrated into the core of a day treatment center. As an American evidence-based practice there was initial concern about the cultural sensitivity of FFT in regard to the ethnic differences among the Dutch population. Nevertheless the implementation process of the last few years has proven it to be possible to work with almost all families, and the Functional Family Therapy (FFT) model was implemented without major theoretical changes. There were, however, major challenges in adapting FFT. For example, the primary mission of the Center 'the individual (disturbed) patient comes first' had to be changed in 'engaging with and motivating the (healthy parts of) the family first.' The changes that were made are adjustments necessary to make the model fit into a mental health center, integrate the insights of Contextual Therapy and the (different) culture(s) of the Netherlands without changing the model of FFT itself.

The initial success of implementing FFT into a different culture and within a primarily psychiatric center of mental health care was based on three primary issues. First, the model developers and the center collaborated in order to develop an alliance to work together. This alliance, built on mutual trust and credibility, allowed for the site to acknowledge and implement the suggestions of the FFT team

while allowing the FFT team to make necessary model adjustments to fit the unique implementation and clinical challenges. In the end, this collaborative venture left the core of FFT intact and adapted only the way in which it was taught and the manner in which it was delivered. Second, the issue of cultural sensitivity of the model was closely examined. Few elements of the FFT theoretical model were changed. The phasic nature of the model remained the same and the original core conceptual and theoretical principles are applied. In fact, the 'matching to' the client principle served to empower the Netherlands FFT team to find unique and culturally sensitive ways to meet the goals of each phase of FFT in a manner that matched the unique needs of the family they were helping. In some cases the model became more direct in its application and in others, certain phases were prolonged. In the end, the integrity of the model remained unaffected while being implemented in a way that matched the unique cultural and ethnic variations of the client. Finally, implementation was altered relying heavily on technology in order to closely monitor the service delivery system of the new site. In doing so, the fidelity of the FFT model was retained despite the great distance.

This article is a report of one of the first published accounts of an international replication of an American evidence-based family therapy model. This is not an outcome replication, but a replication of the transportation model of FFT and its ability to fit within a culturally different mental health setting and refocus the center in a family therapy direction. Despite the great diversity of clients, the significant challenges to implementation, and the many local barriers to success, FFT has become an integral part of an internationally-based forensic mental health system. Indeed, there is much more to learn about adaptation of American practices in diverse cultures. In this replication the outcome would suggest that FFT, when implemented with flexibility and in accordance with the principle of 'matching to,' can be culturally sensitive to both service delivery systems and unique client factors.

CHAPTER 3

THE VALIDITY OF QUESTIONNAIRE SELF REPORT OF PSYCHO-PATHOLOGY AND PARENT-CHILD RELATIONSHIP QUALITY IN JUVENILE DELINQUENTS WITH PSYCHIATRIC DISORDERS

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ABSTRACT

The present study focuses on the validity of questionnaire self report of psychopathology and parent-child relationship quality for juvenile delinquents with severe behavioral and psychiatric disorders by comparing information derived from questionnaire self report with information from other sources, including parent report, in-depth interviewing, behavioral observation by clinicians, and official criminal records. The sample consisted of N = 33 juvenile delinquents with psychiatric disorders. The juvenile delinquents did not report increased levels of psychopathology or poor relationships with their parents, which is inconsistent with the fact that all juvenile delinquents were in day treatment for severe behavioral maladaptation and relationship problems. Moreover, parent ratings of psychopathology were consistently in the clinical range and relationship quality was evaluated as very poor by the parents ($d > .80$). We conclude that screening instruments for psychopathology and assessment of relationship quality relying on questionnaire self report may not yield valid scores in this (extreme) population of juvenile delinquents.

INTRODUCTION

Juvenile delinquents show considerably more psychopathology than adolescents from the general population (e.g., Doreleijers, 1995; Doreleijers, Moser, Thijs, van Engeland, & Beyaert, 2000). In Bulten's study (1998) young adult delinquents displayed five to eight times more psychiatric problems than peers from the general population. Vreugdenhil, van den Brink, Wouters, Ferdinand, and Doreleijers (2004) interviewed 204 incarcerated boys, aged 12 to 19 years, in six closed correctional facilities, using the DISC-C, which is an in-depth psychiatric interview based upon the DSM IV classification system. Ninety percent of the subjects were classified as having at least one psychiatric disorder, such as substance abuse, psychotic symptoms, ADHD or internalizing disorders. Notably, the high incidence of psychopathology was contradicted by relatively low scores on the externalizing scale of the Youth Self Report, which raises the question as to whether the assessment of psychopathology by means of self report is appropriate for high risk clinical samples, such as juvenile delinquents with psychiatric disorders. Vreugdenhil et al.'s findings are in line with other studies showing that self report produces unrealistically low scores of psychopathology in adolescents with life course persistent antisocial behavior (Barkley, 1998; Loeber, Green, Lahey, & Stouthamer-Loeber, 1989).

Additional evidence for under-reporting of psychopathology in clinical samples stems from epidemiological studies revealing that the frequency and severity of problems reported by parents and children vary by the clinical status of the child. In non-clinical samples, self reporting by young people shows higher rates of psychopathology compared to parent report of psychopathology of their children (Achenbach, 1991a, 1991b; Stanger & Lewis, 1993; Verhulst, van der Ende, & Koot, 1996, 1997), whereas in clinical samples youth ratings tend to be lower than parent ratings (Kazdin, French, & Unis, 1983; Kolko & Kazdin, 1993; Mokros, Poznanski, Grossman, & Freeman, 1987; Thurber & Osborn, 1993; Thurber & Snow, 1990).

Explanations for under-reporting psychopathology by adolescents in clinical samples may be found in unrealistic self-perception, biased attribution processes and lack of self-reflection (Dodge, 1993; Kazdin, 1993; Moffitt, 1990). Baumeister, Smart,

and Boden (1996) found that juvenile delinquents show high narcissism and inflated self esteem. For example, the assessment of juvenile delinquents' self esteem with the Rosenberg Self-Esteem Measure yielded unrealistically high ratings on self esteem. Gibbs (2003) emphasizes that denial and trivializing emotions are frequently used defense mechanisms in juvenile delinquents to protect themselves from being offended.

More valuable information on psychopathology in juvenile delinquents may be obtained by using parent report in addition to youth self report. Information from parents is also important when investigating parent-child relationship quality. In a prospective national population study Dornbusch, Erickson, Laird, and Wong (2001) found that delinquency and violent behavior were most strongly predicted by parent report of family connectedness, and not, or only to a much lesser extent, by adolescent report of family closeness. A possible explanation (Dornbusch et al., 2001) might be that parents react to deviant behavior of their child by feeling less close, whereas the adolescent does not perceive drifting away from conventional societal norms and reports the same emotional closeness. Parents may also feel abandoned by their child, who spends increasing time with (deviant) peers outside the home. As a consequence parents feel powerless to monitor their children. Notably, there could be a connection between parent report of family closeness and parents' monitoring activities of their children (Stattin & Kerr, 2000).

In sum, several studies have shown that children at high risk for antisocial behavior minimize symptoms of psychopathology on self report questionnaires, and one study revealed that delinquents may deny poor relationships with their parents. However, under-reporting of psychopathology and poor parent-child relationship quality by adolescents was not hypothesized in those studies. In other words, the underestimation of psychopathology and poor relationship quality has been a post-hoc finding, and is therefore in need of replication. We expect that juvenile delinquents with psychiatric disorders will underreport psychopathology and underestimate poor relationships with their parents on standardized checklists. This should be reflected in relatively low scores for psychopathology and relatively high scores for relationship quality when comparisons are made with normative scores for the general and clinical population, and when comparisons are made with parent report of psychopathology and relationship quality.

METHOD

Participants

Participants were N = 33 juvenile delinquents (and their parents) with a diagnosis of behavioral and psychiatric disorders, receiving psychiatric treatment in a day treatment center, and for whom criminal data had been gathered in officially confirmed reports. The population of the day treatment center consisted mainly of juvenile delinquents from 12 to 21 years of age with psychiatric disorders (such as psychosis, ADHD, internalizing and externalizing behavior problems, as well as Pervasive Development Disorders). Referral for day treatment was based on the co-occurrence of family problems, indicating that the parent-child relationship was seriously threatened. Treatment was judicially imposed after independent psychological and psychiatric consultation. The vast majority of these boys had been convicted for having committed violent crimes. The duration of treatment in the center was dependent on progress in psychosocial functioning and diminished risk of recidivism. The average duration was about one year.

Subjects included in this study were boys enrolled in the day treatment center from March 2001 until January 2004 (N = 33), and their parent(s). Ages ranged from 13 to 20, (Mean = 15.9 years): 46% of the boys came from single-parent families, and 42% came from families with both parents present. Almost half of the boys (46%) were ethnically Dutch, while the rest came from ethnic minority backgrounds. All subjects completed the Youth Self Report (YSR), the Child Behavior Checklist (CBCL), the Buss Durkee Hostility Inventory (BDHI), and the Parent Child Interaction Questionnaire (PACHIQ). Parents, mostly mothers, were asked to fill in the forms during the intake.

Measures

The Child Behavior Check List (CBCL) obtains reports from parents regarding their children's behavioral and emotional problems. The CBCL contains118 items describing specific behavioral and emotional problems and two open-ended items for reporting additional problems. Parents rate their child as to how truly each item

depicts the child in the present or during the past six months. Extensive reliability and validity data have been reported by Achenbach and Rescola (2001). We found the following reliabilities, in terms of Cronbach's alpha: withdrawn behavior α = .78, somatic complaints α = .34, anxious/depressed α = .85, social problems α = .80, thought problems α = .84, attention problems α = .85, delinquent behavior α = .80, aggressive behavior α = .94, internalizing α = .85, externalizing α = .93 and total problems α = .94.

In order to make comparisons between juvenile delinquents and reference groups, general and clinical normative data were derived from a Dutch representative sample of 440 boys aged 12 to 18, drawn from the general population (Verhulst, van der Ende, & Koot., 1996; Verhulst, Van der Ende, & Koot, 1997), and a Dutch representative sample of 328 clinically referred boys aged 12 to 18 (Verhulst et al., 1996; Verhulst et al., 1997).

The Youth Self Report (YSR) is derived from the Child Behavior Check List. It has been designed for use with adolescents aged 12 to 18. The YSR contains 112 items that measure eight symptoms: withdrawn behavior, somatic complaints, anxiety and depression, social problems, thought problems, attention problems, aggressive behavior, and delinquent behaviors (Achenbach, 1991a). The first three subscales constitute the broad-band scale for 'internalizing' problems, whereas the next two subscales constitute the broad-band scale for 'externalizing' problems. The scale for total problems represents behavioral and emotional functioning. Reliability and validity have been well established (Achenbach, 1991a). We found the following reliabilities in terms of Cronbach's alpha: withdrawn behavior α = .75, somatic complaints α = .59, anxious/depressed α = .86, social problems α = .31, thought problems α = .75, attention problems α = .66, delinquent behavior α = .78, aggressive behavior α = .91, internalizing α = .88, externalizing α = .93 and total problems α = .96.

In order to make comparisons between juvenile delinquents and reference groups, general and clinical normative data were derived from a Dutch representative sample of 495 boys aged 12 to18, drawn from the general population (Verhulst et al., 1996; Verhulst et al, 1997), and a Dutch representative sample of 418 clinically referred boys aged 12 to 18 (Verhulst et al., 1996; Verhulst et al., 1997).

The Buss Durkee Hostility Inventory (BDHI) was originally developed by Buss and Durkee (1957) and was revised by Buss and Perry (1992). Lange et al. (1995), who translated the instrument into Dutch, found two independent factors: overt (direct) and covert (indirect) aggression. Direct aggression represents the combination of physical and verbal aggression. Anger and hostility are the core concepts of indirect aggression. The items of the "true" and "not true" type are filled in by the subjects themselves. Extensive reliability and validity data have been reported by Lange et al. (1995). We found the following reliabilities (Cronbach's alpha): direct aggression $\alpha = .87$ and indirect aggression $\alpha = .83$.

In order to make comparisons between juvenile delinquents and reference groups, general and clinical normative data were derived from a Dutch representative sample of 225 respondents aged 15 to 40, drawn from the general population, and a Dutch representative sample of 104 clinically referred respondents aged 13 to 25 (Kodde, Rullmann, Spaargaren, & Waltman, 1994).

The Parent Child Interaction Questionnaire (PACHIQ) is based on the Family Assessment Measure (Skinner, Steinhauser, & Santa-Barbara, 1983), which focuses on dyadic family relationships. The PACHIQ, which has been translated into Dutch by Lange, Blonk, and Wiers (1998), assesses parent-child relationship quality in terms of democratic communication skills (parent report) and parental acceptance and authority (adolescent self report). The following reliabilities were found for the PACHIQ-Parent version: democratic communication skills mother $\alpha = .83$, and democratic communication skills father $\alpha = .90$. For the PACHIQ-Child version we found $\alpha = .81$ for the mothers and $\alpha = .86$ for the fathers on the authority scale. We found $\alpha = .87$ for the mothers, and $\alpha = .90$ for the fathers on the acceptance scale.

In order to make comparisons between juvenile delinquents and reference groups, general normative data were derived from a Dutch representative sample of 288 adolescents, aged 13 to 16, and their parents, drawn from a regular high school population (Lange et al., 1998). There were no clinical normative data available.

TABLE 1. YSR: PSYCHOPATHOLOGY IN JUVENILE DELINQUENTS: COMPARISONS WITH BOYS DRAWN FROM THE GENERAL AND CLINICAL POPULATION

	Juvenile delinquents			*General*		*Clinical*	
	N	M	SD	M	SD	M	SD
syndromes							
Narrowband							
Withdrawn	32	2.66	2.70	2.35	2.01	4.08	2.83
Somatic complaints	33	1.61	1.84	2.07	2.09	2.78	2.92
Anxious/Depressed	33	3.97	4.55	4.05	3.33	7.45	5.99
Social Problems	33	2.51	1.73	2.56	2.11	3.83	3.09
Thought problems	33	1.33	2.09	1.16	1.54	1.76	2.17
Attention problems	33	4.64	2.90	4.62	2.73	6.45	3.54
Delinquent behavior	33	4.79	3.81	3.64	2.46	4.38	3.05
Aggressive Behavior	33	7.58	6.70	7.59	4.76	10.75	6.90
Broadband							
Internalizing	33	7.94	7.12	8.35	5.65	13.83	9.44
Externalizing	33	12.36	10.01	11.23	6.41	15.12	9.04
Total problems	33	33.24	23.72	32.83	16.31	46.32	23.83

* *p < .05, ** p < .01, *** p < .001, [1] = significant*

RESULTS

To investigate the validity of questionnaire self report of psychopathology and parent-child relationship quality in juvenile delinquents with severe behavioral and psychiatric disorders, we compared juvenile delinquents with adolescents and their parents in the general and clinical population. A series of t-tests were conducted on all YSR scales, CBCL scales, BDHI scales, and PACHIQ scales. For comparisons with the clinical population on the YSR and CBCL effects at p < .001 (one-tailed) were

	Juvenile delinquents vs. General			*Juvenile delinquents vs. Clinical*		
	t	*d*		*t*	*d*	
	.64	.11		-2.99***[1]	-.53	
	-1.45	-.25		-3.67***[1]	-.64	
	-.10	-.02		-4.39***[1]	-.76	
	-.16	-.03		-4.37***[1]	-.76	
	.48	.08		-1.18	-.20	
	.03	.04		-3.59***[1]	-.63	
	1.73	.30		.61	.11	
	-.01	-.00		-2.72**	-.47	
	-.33	-.05		-4.75***[1]	-.83	
	.65	.11		-1.58	-.28	
	.10	.02		-3.17**	-.55	

considered significant. For comparisons with the general population effects at $p < .05$ (two-tailed) were considered significant in order to avoid a type two-error, that is, a decision to accept the null hypothesis when it is actually false. Notably, we were now testing for similarities between groups, and not for differences. For comparisons with the general and clinical population on the BDHI and PACHIQ, effects at $p < .05$ were considered significant (two-tailed for comparisons with the general population and one-tailed for comparisons with the clinical population). Cohen's d was

TABLE 2. CBCL: PSYCHOPATHOLOGY IN JUVENILE DELINQUENTS: COMPARISONS WITH BOYS DRAWN FROM THE GENERAL AND CLINICAL POPULATION

	Juvenile delinquents			*General*		*Clinical*	
	N	M	SD	M	SD	M	SD
syndromes							
Narrowband							
Withdrawn	29	6.38	3.95	2.06	2.41	5.66	3.70
Somatic complaints	26	2.12	1.51	0.90	1.35	1.95	2.42
Anxious/Depressed	29	9.09	6.02	2.51	3.02	7.44	5.60
Social Problems	29	4.18	3.71	1.10	1.56	4.69	3.60
Thought problems	27	2.81	3.31	0.38	0.92	1.47	1.97
Attention problems	29	13.00	6.37	3.46	3.00	9.15	4.69
Delinquent behavior	28	10.47	5.54	1.58	2.00	4.64	4.01
Aggressive Behavior	29	14.83	9.66	4.77	4.64	13.95	9.39
Broadband							
Internalizing	28	16.53	8.66	5.36	5.36	14.46	8.94
Externalizing	29	25.05	14.33	6.35	6.13	18.59	12.37
Total problems	29	65.99	31.78	18.50	14.73	51.79	25.63

* *p < .05, ** p < .01, *** p < .001, [1] = significant*

used as an index of effect size. Cohen (1988; 1992) defined an effect size of d = 0.20 as small, an effect size of d = 0.50 as medium and an effect size of d = 0.80 as large.

Adolescent self report of psychopathology (YSR)

There were no significant differences in questionnaire self report of psychopathology between juvenile delinquents and boys in the general population (Table 1). Comparisons with boys in the clinical population, however, showed significantly

	Juvenile delinquents vs. General			*Juvenile delinquents vs. Clinical*		
	t	*d*		*t*	*d*	
	5.89 ***[1]	1.09		.98	.18	
	4.12 ***[1]	.81		.56	.11	
	5.89 ***[1]	1.09		1.48	.27	
	4.47 ***[1]	.83		-.75	-.14	
	3.83 ***[1]	.74		2.11 *	.41	
	8.06 ***[1]	1.50		3.25 **	.60	
	8.49 ***[1]	1.60		5.57 ***[1]	1.05	
	5.61 ***[1]	1.04		.49	.09	
	6.83 ***[1]	1.29		1.27.	.24	
	7.03 ***[1]	1.31		2.43 *	.45	
	8.05 ***[1]	1.51		2.41 *	.45	

lower ratings for juvenile delinquents on the following scales: withdrawn behavior, somatic complaints, anxious/depressed, social problems, attention problems (narrowband scales), and internalizing problems (broadband scale).

Parent report of psychopathology (CBCL)

Compared to the general population, parents of juvenile delinquents rated their children significantly higher on psychopathology on all CBCL scales (Table 2). Com-

parisons with the clinical population revealed no significant differences, except for delinquent behavior. Juvenile delinquents were rated higher on delinquent behavior by their parents than were boys in the clinical population by their parents.

Adolescent self report of aggression (BDHI)

As shown in Table 3, juvenile delinquents scored significantly higher than boys in the general population on direct aggression, but there was no significant difference with boys in the clinical population. With regard to indirect aggression, juvenile delinquents reported significantly less indirect aggression than boys in the clinical population. A comparison with boys in the general population did not yield a significant difference on indirect aggression.

Parent and adolescent report of parent-child interaction (PACHIQ)

Juvenile delinquents' parents rated themselves significantly lower on democratic communication skills than did parents in the general population (see Table 4). In contrast, juvenile delinquents' scores for parental acceptance and authority did not differ significantly from adolescents' scores for parental acceptance and authority in the general population.

DISCUSSION

The goal of the present study was to investigate the validity of questionnaire self report of psychopathology and parent-child relationship quality in juvenile delinquents with severe behavioral and psychiatric disorders. Our sample (N = 33) consisted of juvenile delinquents from 13 to 20 years of age with psychiatric disorders. Overall, the results of this study provide support for the hypothesis that juvenile delinquents with psychiatric disorders underestimate psychopathology and poor relationships with their parents.

Problem scores on the Youth Self Report were generally in the normal range, which is inconsistent with the fact that the juvenile delinquents were in day treatment for severe psychiatric disorders, behavioral maladaptation and social problems.

TABLE 3. BDHI: AGGRESSION IN JUVENILE DELINQUENTS: COMPARISONS WITH BOYS DRAWN FROM THE GENERAL AND CLINICAL POPULATION

	Juvenile delinquents			*General*		*Clinical*		*Juvenile delinquents vs. General*		*Juvenile delinquents vs. General*	
	N	M	SD	M	SD	M	SD	*t*	*d*	*t*	*d*
Direct aggression	32	9.66	4.44	7.01	3.24	9.22	3.72	3.37 *	.60	.56	.10
Indirect aggression	33	6.13	4.27	5.57	3.65	11.51	3.87	.76	.13	-7.24 **	-1.25

* $p < 0.05$, ** $p < 0.01$

TABLE 4. PACHIQ: PARENT-CHILD RELATIONSHIP QUALITY IN JUVENILE DELINQUENTS. COMPARISONS WITH THE GENERAL POPULATION

		Juvenile delinquents			*General Population*				
		N	M	SD	N	M	SD	*t*	*d*
Parent report									
Democratic communication	Mother	23	110.75	13.02	148	123.03	9.95	-4.52*	-.94
Democratic communication	Father	17	109.10	17.43	148	123.03	9.95	-3.20*	-.80
Adolescent report									
Authority	Mother	29	34.66	5.18	288	33.56	4.95	1.14	.21
Authority	Father	27	34.78	6.64	288	33.56	4.95	.95	.18
Acceptance	Mother	29	85.55	11.51	288	86.73	11.09	-.55	-.10
Acceptance	Father	27	83.14	13.11	288	86.73	11.09	-1.42	-.27

* $p < 0.01$

Notably, juvenile delinquents reported fewer internalizing problems than adolescents from the clinical population, which appears to contradict the alleged validity of self report questionnaires in detecting internalizing problems in adolescent delinquent populations, which is based on the assumption that adolescents have direct access to their own feelings of depression and anxiety (Loeber, Green, & Lahey, 1990; Phares, 1997).

Questionnaire self report of psychopathology yielded somewhat higher scores for externalizing behavior and thought problems. It should be kept in mind that juvenile delinquents participating in this study were drawn from a population similar to that of Vreugdenhil et al. (2004), who found high rates of psychotic symptoms and disorders: one third of the juvenile delinquents were found to exhibit thought problems. The Buss Durkee Hostility Index yielded mixed findings. Scores were in the normal population range when assessing indirect aggression, whereas direct aggression proved to be in the clinical range. Indirect aggression refers to emotions, and for juvenile delinquents denial of emotions could be 'a way to survive on the street.' Direct aggression, on the other hand, refers to salient and openly displayed behavior that is hard to deny. Moreover, juvenile delinquents may realize that criminal facts have been recorded in different official reports.

Parent ratings of psychopathology in the delinquent group were consistently high for the whole range of problems. The scores for delinquent behavior were much higher than normative scores for the clinical population. As such, the expectation that parents would report higher levels of psychopathology than juvenile delinquents with psychiatric disorders proved to be correct. This result is consistent with findings from earlier studies. For example, in Doreleijers' study (1995) 26% of the incarcerated juvenile delinquents reported serious problems, whereas this figure was 51% when using parent report. However, the response rate of the parents in Doreleijers' study was extremely low, which might have influenced the results. In our study the response rate was 100%. Juvenile delinquents' self report only indicated slightly increased levels of externalizing behavior and thought problems. Since the juvenile delinquents in this study had been sentenced for (mostly) violent crimes and were referred for psychiatric treatment, the parent ratings, indicating high levels of psy-

chopathology, should be considered as more valid.

Vreugdenhil et al. (2004), comparing a clinical interview (DISC) with Achenbach's Youth Self Report (YSR), concluded that denial of psychopathology in juvenile delinquents is not a sufficient explanation of the different results obtained with questionnaire self report and clinical interviews. She contends that different assessment methods are based on different concepts of psychopathology. For instance, Achenbach's dimensional approach (CBCL/YSR), in contrast to the categorical DSM approach, assumes continuity between normal and abnormal development. More importantly, criticisms have been raised against the DSM classification system in that it may not sufficiently acknowledge the developmental dimension of juvenile psychopathology, applying adult categories to childhood deviant behaviors (Cantwell, 1996; Garber, 1984). Although several studies have demonstrated the diagnostic accuracy of the CBCL syndrome scales for predicting DSM disorders (e.g., Edelbrock & Costello, 1988; Hudziak, Copeland, Stanger, & Wadsworth, 2004), an important drawback of behavior checklists may be the underrepresentation of problems that are found in clinical populations (Widenfelt, Goedhart, Treffers, & Goodman, 2003). Therefore, it is advisable to combine clinical interview methods and questionnaires self report to obtain a more valid diagnosis.

The Parent Child Interaction Questionnaire (PACHIQ)-Parent version revealed that parents experienced problems in the relationship with their children, whereas there were no indications of parent-child interaction problems on the PACHIQ-Child version. Notably, referral for treatment was based on the occurrence of parent-child relationship problems established by means of independent psychiatric assessment, clinical judgment, and parent report. Therefore, it can be concluded that questionnaire self report is not a valid way of obtaining information regarding parent-child relationship problems in juvenile delinquents with psychiatric disorders, as children appear to deny problems with their parents.

The importance of the perspective of the parent on both adolescent psychopathology and family connectedness should not be underestimated, not only because parents provide valuable information, but also for targeting treatment planning. The importance of the perspective of the parent on both adolescent psychopathology

and family connectedness should not be underestimated, not only because parents provide valuable information, but also because of the potential of parental involvement in treatment.

This study has some limitations. First, the sample size was relatively small. An important factor to keep in mind, however, is the uniqueness of our sample, consisting of juvenile delinquents from 13 to 20 years of age with psychiatric disorders. In earlier studies with comparable young people there was insufficient response from parents. In this study we had a 100% response rate. Second, parent-child relationship quality was narrowly defined, as we only focused on parental authority, acceptance, and democratic communication skills. Our picture would have been more complete if we had included adolescent-parent conflicts, closeness, intimacy, relational support, and adolescent interactive behaviors and attitudes towards their parents. Third, the adolescents' treatment history or current therapy may have lowered scores on psychopathology or fostered a positive view of their parents.

This study found empirical support for the hypothesis that questionnaire self report of psychopathology and parent-child relationship quality by means of questionnaires might not be appropriate for juvenile delinquents with psychiatric disorders. Interestingly, Kratzer, and Hodgins (1997); and Vreugdenhil (2003) proposed a multi-method approach, gaining information from the juvenile delinquent's environment, using in-depth interviewing methods (such as DISC-C) and behavioral observation. This study showed that screening instruments for psychopathology and assessment of relationship quality relying on questionnaire self report may not yield valid scores in juvenile delinquents with severe behavioral and psychiatric disorders. We propose that assessment methods be tailored to the type and context of problems, and the clinical risk status of the target group.

CHAPTER 4

EARLY DROPOUT IN A DAY TREATMENT PROGRAM AS A PREDICTOR FOR RECIDIVISM AMONG JUVENILE DELINQUENTS

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Submitted

ABSTRACT

The present study focuses on early dropout in a day treatment program as a predictor of recidivism among juvenile delinquents, by comparing one-year recidivism of adolescents who completed the day treatment program and that of those who dropped out within three months after the start. The sample consisted of 74 juvenile delinquents diagnosed with an antisocial behavior disorder and psychiatric comorbidity referred to a day treatment center for forensic adolescent psychiatry.

Our findings indicate that early dropout predicts more recidivism after one year than completion of the day program (57.1% in the dropout group compared to 25.6% in the group of completers); a larger number of crimes: (on average:1.21 vs. .44), more violent crimes (28.6% vs. 7.7%), and more severe crimes as measured by a crime severity index (on average: 6.93 vs. 2.36). A remarkable finding is that pretreatment crime severity does not predict recidivism after treatment: dropout is far more important.

INTRODUCTION

Juvenile delinquency has recently become a high priority in the Netherlands (Cornelisse, 2005). While juvenile delinquency as a whole has not increased during the last few decades, both self-report measures and official police records indicate that approximately 40-55% of juveniles have admitted to having committed a criminal act in the past year (Van der Laan, Blom, Verwers, & Essers, 2006). In addition, the last 20 years have shown a 300% increase in violent criminal acts by juveniles (Boendermaker & Van Yperen, 2003). This has led to both societal and political pressures calling for prolonged incarceration and residential treatment alternatives, in order to remove these juveniles from society. This trend has continued despite empirical findings that both imprisonment (Wartna, El Harbachi, & Van der Laan, 2005) and residential treatment are related to high recidivism rates (40-50% after 1 year). In response to these findings a number of comprehensive treatment programs including this study's day treatment program have been developed to provide an alternative to incarceration and residential treatment.

A major concern in treating adolescents with antisocial behavior disorders is the high percentage of treatment dropout, which has shown a rise up to 60% (Kazdin, 1996; Wierzbicki & Pekarik, 1993). In adolescents with severer violent and/or delinquent behavior problems this percentage is even higher than 60% (Armbruster & Fallon, 1994). Dropout can best be defined by the number of sessions a client has attended (the duration of therapy) before the client's terminating therapy without 'mutual consent' between therapist and client (Wierzbicki & Pekarik, 1993). Dropout should be divided into two different groups, early dropouts and late dropouts (Boon & Colijn, 2001). Early dropout is usually defined as terminating treatment after only a few (1-3) sessions and is reliably related to poor social adjustment (e.g., family, school/work, peers) after dropping out. Late dropout is associated with an intermediate level of post-treatment social functioning compared to the highest achievable level of social adjustment that can be reached after appropriate (i.e., 'mutually consented') termination of treatment. Early dropout, late dropout and appropriate (consented) termination represent a continuum of treatment outcome (Pekarik, 1986).

An explanation for this could be that clients who drop out of therapy in a later stage have found to be representing a much more heterogeneous group than those who drop out after the first few sessions/shortly after commencing treatment.

To prevent dropout, treatment programs' goals for behavior-disordered adolescents should take account of both risk and protective factors in the development of antisocial behavior. These treatment programs are aimed at providing mental health care both to juveniles (by means of individual social skills training, anger management training and if necessary medication) and/or their families (by use of traditional cognitive behavioral methods). Current evidence suggests that a small number of family based intervention programs has the highest success probability in treating these difficult adolescent disorders (Kazdin, 1997; Kazdin & Weiss, 2003; Sexton, Alexander, & Mease, 2003). Within these programs parents experiencing more parenting stress, having children with more disturbed behavior and/or perceiving their children more difficult than others and who are not convinced that program strategies are useful, drop out sooner compared to completers (Friars & Mellor, 2007).

The main question of this study is: does early dropout predict recidivism? As mentioned, late dropouts compose / represent a more heterogeneous group than early dropouts and completers and are therefore related to with intermediate outcomes. For this reason, in this study early dropouts were severed from completers since these former groups are more homogeneous in composition. The day treatment program lasts on average one year. Early dropout is defined here as non-consenting termination of treatment within three months of its start. Completion is defined as a period of treatment of at least 3 months, followed by a treatment termination based on mutual consent between both therapist and client.

The hypothesis is that early dropouts will show a higher recidivism rate one year after treatment termination compared to completers; furthermore this group is expected to have committed severer violent crimes more frequently.

METHOD

Participants

The study includes 74 juvenile delinquents diagnosed with an antisocial behavior disorder and psychiatric comorbidity referred to a day treatment program for forensic adolescent psychiatry. Of the initial referral sample (n = 86), 12 juveniles were excluded. Females were excluded (n = 2), because of a different psychiatric comorbidity and violent behavior pattern from males. Furthermore, youths sentenced to prolonged imprisonment (>1 year) for a crime committed shortly before or during treatment were excluded (n = 9) since, due to the incarceration period, they would not be able to commit crimes during the follow-up period (12 months after treatment termination). For the purpose of this study, one client with extreme high scores was excluded. In the other study on recidivism (Chapter 6) this client was included.

The remaining 74 juveniles started treatment between August 1997 and August 2004 and dropped out or completed treatment between September 1997 and February 2006.

Setting and population of the day treatment program

This study involved clients of a multimodal day treatment program for juvenile delinquents, who have committed severe violent crimes. The group consists of adolescents diagnosed with behavior disorders and psychiatric comorbidity together with major/serious problems in functioning in family and school settings. Intensive day treatment was indicated as an alternative to residential treatment.

The day treatment program started in 1997 as one of the first forensic psychiatric day treatment programs for adolescents in the Netherlands. The development of this day treatment can be divided into three chronological phases:

- 1997-1999. The pilot phase. Development of a safe treatment climate and a structured day program containing social skills training, development of competencies, and contingency management (Slot, 1999; Bartels, 1999).
- 2000-2002. Development of a more individually tailored program. During this

phase more attention was paid to psychiatric comorbidity among the clients (Doreleijers, 2000). Cognitive behavior therapy was targeted towards social skills development and aggression management (Kazdin, 1997; De Jonge, 1999; Muller & Colijn, 1999; Dodge, 1986).

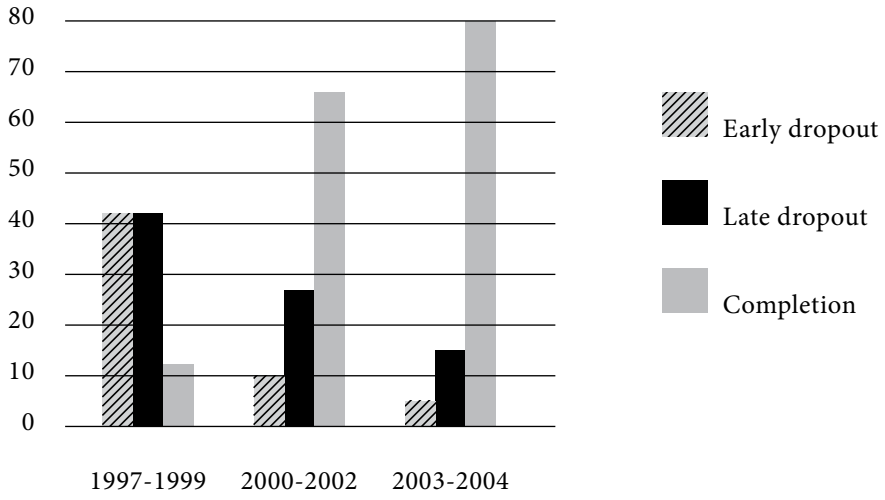
• 2003-2004. Introduction of Functional Family Therapy (Alexander & Sexton, 2002; Sexton & Alexander, 2003). The first treatment phase is family oriented, whereas the second treatment phase focuses on a more individually oriented approach (Breuk et al, 2006).

During the development of these three phases, each step led to more focusing on risk and protective factors, as well as on the comprehensiveness of treatment. During this process of developing a multimodal oriented and more intensive treatment program, dropout rates diminished within each phase of the day treatment's development.

In the first phase, 1997-1999, 23 (31.1%) juveniles enrolled; during the second phase, 2000-2002, 31 (41.9%); and in the last phase, 2003-2004, 20 (27%) clients started treatment. No significant differences were found regarding age, ethnic background, family composition or criminal history among the juveniles enrolled in the different phases.

Dropout rates showed a decline within the three different time phases (Figure 1). In phase 1 (1997-1999), ten youths (43.5%) dropped out early in treatment, ten youths (43.5%) dropped out late in treatment and three youths (13%) completed treatment. In phase 2 (2000-2002) there were three early dropouts (9.7%), eight late dropouts (25.8%) and 20 completers (64.5%). In phase 3 (2003-2004) there was one early dropout (5%), three late dropouts (15%) and 16 completers (80%). A significant effect on dropout was found for all phases, $\chi 2$ (4, N = 74) = 24.74, $p < .001$, with a large effect size (V = .407).

FIGURE 1. PERCENTAGE OF TREATMENT SESSIONS IT, PMT, FFT CATEGORIZED BY YEAR



Procedure and measures

Participants' files were studied carefully at the start of treatment, specifying age, ethnicity and family composition. Information on treatment termination was derived from the day treatment's clinicians' discharge letters. Treatment dropout was defined as a juvenile ending treatment without mutual consent by both clinician and client. When treatment dropout appeared within three months after the start of treatment, it was labeled 'early dropout'; dropout occurring after three months was labeled 'late dropout'.

Data on the juveniles' criminal behavior was gathered from the National Dutch Judicial Documentation System (JDS). This is a nationwide electronic database maintained by the Ministry of Justice containing all court sentences. The database includes all offenders convicted at trial. Access to the database was permitted by the science board of the Ministry of Justice (WODC).

More specifically, the database was used to obtain data on felonies committed in the period prior to treatment (pretreatment period) as well as crimes committed within 12 months after treatment termination (follow-up period). A felony was

excluded if the juvenile was acquitted or if charges were dropped (e.g. because of lack of evidence or procedural faults). The definitions concerning juvenile delinquency (recidivism, first offenders) are according to the method used by the WODC.

The number of felonies committed and the occurrence of severe violent felonies in the pretreatment and follow-up periods were counted. (see Appendix 1) Furthermore, each felony was judged as to crime severity by means of an assessment method (developed by Doreleijers, 1995; see Appendix 2). According to this method, each crime was scored from 1 to 21 based on the maximum imposable penalty for that crime. Each sequential step in numbers represents an interval of 12 months. Thus a score of 1 means a maximum penalty up to 12 months, a score of 2 means a penalty from 12 up to 24 months, etc. In this study, the mean crime severity scores were calculated for each juvenile in both the pretreatment and follow-up periods.

To find out if pretreatment crime severity was a predictor of recidivism outcomes, youths were classified into categories based on the number of felonies they had committed before treatment. Juveniles who committed zero to three felonies before treatment, received value 1, those who committed four to seven felonies were given value 2 and those with more than seven felonies (maximum: 23) received value 3. Youths were also classified into categories based on the crime severity score before treatment. Clients with a score of 0 to 20, received value 1, those with a score from 21 to 40 were given value 2 and those with a score over 40 (maximum: 182) received value 3.

Analyses

- *Chi Square Test*

  Differences in dropout between the three time phases were analyzed using the Chi Square test. Recidivism was displayed as a dichotomous variable with end labels "yes, convicted of a felony in follow-up period" and "no felonies in follow-up period". Differences between early dropouts and completers were then studied using the Chi Square test. The occurrence of severe violent felonies committed within the follow-up period was also tested using the Chi Square test.

  Effect sizes and odds ratios were calculated on each Chi Square Test executed.

- *Mann-Whitney Test*

  The distribution of both the number of felonies and the crime severity scores during the follow-up period appeared to be non-normal. After adjustment, the data were still not normally distributed, so a non-parametric test had to be used. Differences between early dropouts and completers were tested using the Mann-Whitney test. Effect sizes for each test were calculated.

- *Kruskal-Wallis Test*

  The relationship between pretreatment crime severity (categorized into different groups) to both the number of felonies during the follow-up period and the crime severity scores during the follow-up period, was tested using the Kruskal–Wallis test, a nonparametric test for independent samples.

  All tests were considered significant at $p < .05$. Tests were performed one-tailed if a specific hypothesis was available.

TABLE 1. SAMPLE CHARACTERISTICS

Domain/ Measure	%	*(n)*	*M*	*(SD)*
Male	100	(74)	-	-
Age at start treatment (years)	-	-	16.76	(1.48)
Ethnicity				
Caucasian/white	47.3	(35)	-	-
Surinam	20.3	(15)	-	-
Arabic (mainly Moroccan)	17.6	(13)	-	-
Other non-western background	14.9	(11)	-	-
Family composition				
Two-parent family consisting of at least one biological parent	47.3	(35)	-	-
One-parent family (biological)	47.3	(35)	-	-
Foster family	5.4	(4)	-	-
Criminal history				
Age at first crime (years)	-	-	14.35	(1.07)
First offenders	8.1	(6)		
Severe violent felony	50.0	(3)	-	-
Repeat offenders^	32.4	(24)		
Severe violent felony	79.2	(19)	-	-
Number of felonies prior to treatment	-	-	2.54	(0.51)
Persistent offenders^^	59.5	(44)		
Severe violent felony	88.6	(39)	-	-
Number of felonies prior to treatment	-	-	7.36	(3.58)

Note: ^ repeat offenders committed two or three felonies ^^persistent offenders committed 4 felonies or more.

RESULTS

Sample characteristics

In table 1, sample characteristics are shown. As presented in this table the majority of juveniles referred to this day treatment program were persistent offenders. They had committed four felonies or more before referral. One third of the sample group consisted of repeat offenders. They had committed more than one felony, but less than four. A small part of the sample group consisted of first offenders, 50% of them having committed a severe violent felony.

Early dropout versus completion

In table 2 the number of early dropouts, late dropouts and treatment completers is presented.

TABLE 2. PERCENTAGE AND TOTAL NUMBER OF YOUTHS WHO COMPLETED THERAPY, WHO DROPPED OUT OF TREATMENT IN AN EARLY PHASE, AND WHO DROPPED OUT IN A LATE PHASE (N = 74).

	%	*(n)*
Completers	52.7	(39)
Early dropouts	18.9	(14)
Late dropouts	28.4	(21)
Total	100	(74)

Early dropouts will be compared to completers on crime recidivism. In table 3 the recidivism rates for both groups are presented concerning all felonies committed as well as severe violent felonies.

TABLE 3. PERCENTAGE OP YOUTHS WHO COMMITTED FELONIES IN GENERAL (INCLUDING SEVERE FELONIES) AND SEVERE VIOLENT FELONIES IN THE FOLLOW-UP (N = 53).

	Early dropouts		*Completers*	
Variable	%	*(n)*	%	*(n)*
Recidivism within 12 months FU* (dichotomous)	57.1	(8)	25.6	(10)
Severe violent recidivism within 12 months FU (dichotomous) ^	28.6	(4)	7.7	(3)

*Note: * p < .05., ^ Some cells in the chi square test contained values smaller than 5, so results should be interpreted with caution.*

FU = follow-up

There was a significant relationship between the type of termination (early dropout versus completion) and committing a felony within the 12 month follow-up period, $\chi 2$ (1, N = 53) = 4.558, p = .017, with a medium effect size (V = .293). Based on the odds ratio, early dropouts were 3.91 times more likely to recidivate than completers. Also, there was a significant relationship between the type of termination and committing severe violent felonies 12 months after treatment termination, $\chi 2$ (1, N = 53) = 3.918, p = .024 with a medium effect size (V = .272). Based on the odds ratio, early dropouts were 4.82 times more likely to recidivate committing a severe violent felony than completers.

In table 4 the total number of felonies committed within 12 months after treatment termination, and the total crime severity score for felonies committed within 12 months after treatment are presented related to early dropouts and completers.

TABLE 4. TOTAL NUMBER OF RECIDIVISM FELONIES AND THE CRIME SEVERITY SCORE OF EARLY DROPOUTS AND COMPLETERS AT FOLLOW-UP 12 MONTHS AFTER TERMINATING TREATMENT (N = 53).

	Early dropouts		*Completers*	
Measure	Mean	*(SD)*	Mean	*(SD)*
Total number of recidivism felonies*	1.21	(1.58)	.44	(.88)
Crime severity index*	6.93	(9.401)	2.36	(5.07)

*Note: * p < .05.*

According to the Mann-Whitney test, early dropouts (Mdn = 1.00, range: 0-5) committed more felonies in the follow-up period than completers (Mdn = 0.00, range: 0-4), U = 183.50, p = .016, with medium effect size (r = -.29). Early dropouts (Mdn = 3.00, range: 0-32) also had a higher crime severity score in the follow-up period than completers (Mdn = 0.00, range: 0-20), U = 184.00, p = .018, with medium effect size (r = -.28).

The number of felonies committed in the follow-up period was not related to the number of felonies a juvenile had committed before treatment (H (2) = 3.99, p = .136). The crime severity score in the follow-up period was not related to the crime severity score before treatment (H (2) = 3.00, p = .223).

DISCUSSION

This study supports the hypothesis that early dropout predicts a higher probability of recidivism.

A lesson to be learned from this study is that studying the effectiveness of a treatment program during the first year after implementation should be done very carefully. Evaluation is nevertheless an important means of gathering insight into

the issues the treatment team still has to develop. The first (development) target of a treatment program for adolescents with behavior problems should be reducing the dropout rate, especially early in treatment (early dropout).

The most important finding is that early dropout predicts higher crime recidivism within one year after treatment termination. The effectiveness in reducing severe violent crime recidivism in the same period is even more striking: only 8% of the completers committed a severe violent felony within one year, compared to 29% of the early quitters. Since 82% of the day treatment group has a history of severe violent criminal acts, day treatment focuses both on individual treatment (aggression management within cognitive behavior therapy) and on family therapy (problem solving and conflict management) to diminish aggression. This main objective of the day treatment program seems to have been successfully attained.

Finally, a remarkable finding is that the pretreatment crime severity does not predict recidivism after treatment. This suggests that the effect of treatment moderates the effect of criminal history on recidivism.

Limitations

The sample size of the population (N=74) is small, the completers (N= 39) and early dropouts (N=14) even smaller. This means that caution should be taken in generalizing the results from this study to other populations.

Furthermore, a less powerful within-group comparison was used instead of a randomized controlled design. This choice however is acceptable since treatment evaluation studies of juvenile delinquents are scarce, yet socially relevant. Another limitation is that most of the early dropouts stem from the 1997-1999 phase, while most completers stem from the 2nd and 3rd time phase, so the early dropouts and completers are from different cohorts. Nevertheless no differences (regarding age, ethnic background, family composition and criminal history) were found between the youths in the three different phases. Unfortunately, comparison of early quitters and completers within a single cohort was not possible because of the small sample size.

Since early dropout can be described as a group that has hardly had any treatment and since their criminal recidivism after one year (57%) is even higher than the mean

criminal recidivism rate for adolescents one year after detention in the Netherlands (44%), it is a justifiable choice to compare these early dropouts to completers of the day treatment.

Social consequences

There is a societal tendency towards 'zero tolerance' of crime issues, aimed at adolescents as well. This means that especially severe violent crimes are punished with juvenile incarceration. Despite the two goals identified by the Criminal Law for Adolescents: punishment and education, it seems that education is being overlooked by this policy. This study shows that day treatment is especially successful in reducing severe (violent) crimes. For this reason it is recommended to treat juvenile delinquents, if necessary during or after incarceration.

Day treatment may serve as a favorable alternative to long term residential treatment, in those cases in which intensive treatment is considered to be necessary after detention. A final argument in favor of day treatment is its duration, which is considerably shorter compared to the usual residential treatment programs after detention. In residential treatment major problems have arisen in the generalization and transfer of treatment outcome to society and the individual family. Furthermore there are difficulties concerning the lack of knowledge of mental health disorders in juvenile judicial institutes. (Grisso & Schwartz, 2003; Desai, Goulet, Robbins, Chapman, Mogdole, & Hoge, 2006; Algemene Rekenkamer, 2007).

Appendix 1

Severe violent crimes:

Extortion
Theft with violence
Manslaughter
Homicide
Criminal assault
Sexual intercourse with a minor
Rape
Open act of violence, resulting in severe physical injury
Fire setting
Kidnapping
Serious physical abuse

Appendix 2

Computing the crime severity score

In computing the crime severity score used in this paper, the maximum possible penalty in years/days of imprisonment for all included felonies, according to the penal code, was noted.

TABLE 4. CRIME SEVERITY SCORES ACCORDING TO MAXIMUM PENALTIES

Maximum penalty (imprisonment)	(days)	Crime severity score
Up to 1 year	(1-364)	1
From 1 up to 2 years	(365- 729)	2
From 2 up to 3 years	(730-1094)	3
From 3 up to 4 years	(1095-1459)	4
From 4 up to 5 years	(1460-1824)	5
From 5 up to 6 years	(1825-2189)	6
From 6 up to 7 years	(2190-2554)	7
From 7 up to 8 years	(2555-2919)	8
From 8 up to 9 years	(2920-3284)	9
From 9 up to 10 years	(3285-3649)	10
From 10 up to 11 years	(3650-4014)	11
From 11 up to 12 years	(4015-4379)	12
From 12 up to 13 years	(4380-4744)	13
From 13 up to 14 years	(4745-5109)	14
From 14 up to 15 years	(5110-5474)	15
From 15 up to 16 years	(5475-5839)	16
From 16 up to 17 years	(5840-6205)	17
From 17 up to 18 years	(6206-6569)	18
From 18 up to 19 years	(6570-6934)	19
From 19 up to 20 years	(6935-7299)	20
From 20 up to 21 years	(7300-7664)	21

CHAPTER 5

THE EFFECTS OF A MULTIMODAL DAY TREATMENT ON AGGRESSION, PSYCHOPATHOLOGY AND FAMILY FUNCTIONING OF JUVENILE DELINQUENTS WITH PSYCHIATRIC COMORBIDITY

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Submitted

ABSTRACT

Objective: to investigate whether forensic psychiatric day treatment is effective in reducing aggression, ADHD, and internalizing psychopathology, and whether it is able to improve family conflict management in juvenile delinquents with psychiatric comorbidity. Method: Participants consisted of juvenile delinquents (N=30) and their parents referred to a day treatment center because of behavioral problems, psychiatric comorbidity, and problems within the family, at school and among peers. Aggression and psychopathology were measured by the Youth Self Report (YSR)/ Child Behavior Checklist (CBCL) and the Buss-Durkee Hostility Inventory (BDHI). Family functioning was measured by the Parent Child Interaction Questionnaire – Revised, and the Questionnaire Family Problems (QFP). Results: Adolescents showed improvement on all relevant (sub)scales of the CBCL, YSR and BDHI, except on the BDHI scale Direct Aggression. In Family functioning, only parents reported diminished family conflict on the Parent Child Interaction Questionnaire – Revised (PACHIQ) – Parent version conflict solving. Conclusion: Day treatment can diminish psychopathology in juvenile delinquents with psychiatric comorbidity. A tendency was found towards lowering family conflict.

INTRODUCTION

Recent studies clearly show the co-occurrence of criminal and violent behavior and psychiatric disorders (Teplin, Abram, McClelland, Dulcan & Mericle, 2002; Vreugdenhil, Doreleijers, Vermeiren, Wouters & Van den Brink, 2004; Vermeiren, De Clippele & Deboutte, 2000). The prevalence of psychiatric disorders increases in juvenile delinquents who commit more serious offenses and/or do so more frequently (Doreleijers, Moser, Thijs, Engeland, & Beyaert, 2000). The most frequently occurring psychiatric disorders among juvenile offenders are ADHD, substance abuse and internalizing disorders (Teplin et al., 2002; Vreugdenhil et al., 2004; Vermeiren et al., 2000). Research on the prevalence of psychosis and pervasive development disorders is limited and therefore not much is known about their prevalence in juvenile delinquents (Vermeiren, Jespers & Moffit, 2006).

Especially ADHD in combination with disruptive behavior disorders (CD and ODD) has been identified as a risk factor for the exacerbation of antisocial behavior (Taylor, Chadwick, Heptinstall, & Danckaerts, 1996; Loeber, Green, Keenan, & Lahey, 1995), particularly in predicting the onset of conduct disorder. In the last decade child and adolescent psychiatry has made use of clinical guidelines for both assessment and treatment in so called practice parameters. Recently published practice parameters show that when these psychiatric disorders are not treated, antisocial behavior can persist and even become worse, so juvenile delinquents repeat committing violent crimes.

In recent AACAP practice parameters, both for anxiety disorders (Practice parameter JAACAP for anxiety disorders, 2007) and oppositional defiant disorder (Practice parameter JAACAP for oppositional defiant disorder, 2007) the importance of assessing and treating comorbid conditions has been emphasized: 'Antagonistic behavior is commonly found in internalizing disorders. Oppositional behavior may be used to manage anxiety in the face of the overwhelming demands' (Practice parameter JAACAP for oppositional defiant disorder, 2007). By treating these comorbid conditions, oppositionality may lessen or even disappear.

Although it is clear that adolescents with psychiatric disorders are in need of

treatment, societal and political pressures are calling for prolonged duration of punitive consequences (e. g. imprisonment). This trend towards increased incarceration has continued despite research data documenting that imprisonment (Wartna, El Harbachi, & Van der Laan, 2005) is related to high recidivism rates (40-50% after one year).

Juvenile delinquents who repeatedly commit violent crimes and who are in need of treatment may obtain coercive residential treatment within the juvenile justice system as an alternative to incarceration. But in these facilities there is a lack of knowledge on how to treat juveniles with mental health problems, as Loeber (2004) stated: 'The juvenile justice system is not equipped to provide mental health services for the large numbers of detainees with psychiatric disorders.'

Another disadvantage of both incarceration and coercive residential treatment is that adolescents are placed in facilities often far away from their home environment and family so that parents cannot be involved in their treatment. Generalization of the social skills learned inside the facility is posing a major problem as well. Clinical guidelines on treating juvenile delinquents are still not available or only concern treatment in detention or correctional facilities (Practice parameter JAACAP for youth in juvenile detention, 2005) instead of treating juvenile delinquents in the community, so forensic adolescent psychiatry uses practice parameters on antisocial behavior to treat juvenile delinquents. Because guidelines for the treatment of conduct disorder have already existed for ten years and treatment guidelines on oppositional and antisocial behavior have many similarities, we refer to the recent practice parameter on oppositional defiant disorder (Practice parameter JAACAP for oppositional defiant disorder, 2007) for treatment guidelines regarding juvenile delinquents. This encourages in severe cases 'the least restrictive setting' and recommends 'intensive in-home therapies as preferable alternatives to residential treatment'. In case of residential treatment 'rapid return to community and family' is recommended. For these reasons forensic psychiatric day treatment might be a good alternative for adolescents that need intensive treatment and for whom residential treatment and/or incarceration is a serious threat.

Furthermore, McConaughy, and Skiba (1993) recommend multifaceted treatment

in cases of behavioral disorders in adolescents with psychiatric comorbidity. Necessary elements of such treatment are a contingency based treatment climate, cognitive behavior therapy and parental involvement (Wierson, Forejhand, & Frame, 1992; Waugh & Kjos, 1992; Tarolla, Wagner, Rabinowitz, & Tubman, 2002). In the recently published practice parameter for oppositional defiant disorder (Practice parameter JAACAP for oppositional defiant disorder, 2007) the following treatment recommendations are given: 'Because of the frequent presence of comorbidity and multiple dysfunctional domains, multimodal treatment is often indicated.' One should consider individual, family, environmental and pharmacotherapy elements. There is evidence in support of problem-solving skills training and family interventions, the latter consisting of parent management training (PMT) and, for both adolescents and their families, Multisystemic Therapy (MST) and Functional Family Therapy (FFT).

This study investigated the effects of a family oriented multimodal day treatment program for juvenile delinquents who have committed severe violent crimes. The subjects suffered from psychiatric comorbidity and major problems in functioning within the family and at school. Intensive day treatment has been indicated as an alternative to residential treatment.

The day treatment program started in 1997 as one of the first forensic psychiatric day treatment programs for adolescents in the Netherlands. The development of this day treatment can be divided into three phases:

- Pilot phase. Development of a safe treatment climate and a structured day program containing elements of social skills training, competence development, and contingency management (Slot, 1999; Bartels, Parker Brady, & Doreleijers, 1999).
- Development of a more individually tailored program. During this phase more attention was paid to psychiatric comorbidity within the clients (Doreleijers, Moser, Thijs, Van Engeland, & Beyaert, 2000). Cognitive behavior therapy was targeted to social skills development and aggression management (Kazdin, 1997; De Jonge, 1999; Muller & Colijn, 1999; Dodge, 1986).
- Introduction of Functional Family Therapy (Alexander & Sexton, 2002; Sexton & Alexander, 2003), (FFT). The first treatment phase of the day treatment is family oriented, whereas the second treatment phase focuses on a more individually

oriented approach (Breuk, Sexton, Van Dam, Disse, Doreleijers, Slot, & Rowlands, 2006).

During the development of these three phases, each step leads to more focusing on risk and protective factors as well as on the comprehensiveness of treatment.

Family orientation as a core characteristic of FFT is the key element of the topical day treatment program. FFT consists of three different phases: engagement/motivation, behavior change and generalization. The program shares to some extent a number of basic principles with a recent practice parameter. In general, FFT emphasizes a therapeutic alliance with both the child and the parents, which is a minimum standard and first recommendation of the practice parameter on oppositional defiant disorder (Practice parameter JAACAP for oppositional defiant disorder, 2007). The second recommendation and minimum standard of this practice parameter, which is to take into account cultural issues, is met by FFT as well. To understand the cultural background and values of the families is considered important because of 'different standards of obedience and parenting in ethnic subgroups' (JAACAP, 2007).

By involving families the day treatment center seeks to diminish family conflict. Nevertheless family burden – caused by the psychological vulnerability of the child - will remain high, resulting in difficulties in supplying emotional support. 'Normal functioning of the family' will remain an unrealistic goal for this juvenile population with severe mental health problems and behavior problems/delinquency.

The present study is the second of three studies undertaken in order to evaluate the development and effectiveness of a day treatment program for juvenile delinquents.

The first study consisted of a comparison study of adolescent self-reports and parent reports at the start of the day treatment (Breuk, Clauser, Stams, Slot, & Doreleijers, 2007). Most studies involving juvenile delinquents lack parent reports (Vreugdenhil, 2003). In the day treatment center both youth and parent reports were available. The study focuses on the differences in reporting considering both juvenile and parental evaluations since this would affect the outcome of the evaluation process.

This study is the second study and it evaluates the treatment outcome of the day

treatment program on psychopathology, aggression problems and family functioning. Noteworthy is the fact that, contrary to other day treatment studies, which exclude juvenile delinquents (Rey, Enshire, Wever, & Apollonov, 1998) or treat a younger population with only a minority with disruptive disorders (Kiser, Millsap, Hickerson, Heston, Nunn, Pruitt, & Rohr, 1996), this treatment effect study includes disruptive adolescents with severe antisocial behavior.

The third study will compare recidivism of the treatment group to a matched control group of juvenile delinquents who were incarcerated and did not receive any further psychiatric treatment. The main question posed in this study is whether a group of juvenile delinquents with both antisocial behavior and comorbid psychiatric conditions show improved functioning after attending a day treatment program, as an alternative to residential treatment.

Hypotheses

The first hypothesis is that aggression-related problems as measured by self-reports of the adolescent and parent reports on aggressive behavior of their children, will be significantly reduced after treatment. The second hypothesis is that ADHD and internalizing problems of the adolescents, as measured by youths' self-reports and parent reports, will be significantly reduced after treatment. The final hypothesis is that family functioning will improve and especially family conflict will diminish.

METHOD

Participants

Participants were juvenile delinquents referred to the day treatment program, because of severe behavioral problems (including delinquency), psychiatric comorbidity, and dysfunctional relationships within the family, at school and among peers. The juveniles started treatment between August 2002 and October 2005 and terminated treatment between October 2002 and September 2006. The parents of these adolescents participated in the study as well. Informed consent had been obtained from all participants.

Of the initial sample of 37 youths, five were excluded because of early dropout. In addition, two participants were excluded from the study because of extreme scores on all questionnaires by both the juvenile and his parents which indicated that they were unwilling or unable to report on their particular complaints in a reliable way. Excluding these seven youths, a study sample of N=30 remains. The sample characteristics are shown in Table 1.

The socio-economic status scores were based on the educational and professional levels of both parents. In case of a single-parent family the average score of the single parent was measured.

To be included in the analyses the adolescent and his parents had to complete both pretreatment and post treatment questionnaires. Because of variance in completing these questionnaires the precise N may vary per questionnaire.

Measures

All adolescents completed the Dutch versions of the Youth Self Report (YSR), the Buss-Durkee Hostility Inventory (BDHI), the youth version of the Parent Child Interaction Questionnaire – Revised (PACHIQ-R) and the Youth Psychopathy Inventory (YPI). The parents were asked to complete the Dutch versions of the Child Behavior Checklist (CBCL), the Questionnaire of Family Problems (QFP) and the parent version of the Parent Child Interaction Questionnaire – Revised (PACHIQ-R). Adolescents and parents completed the former PACHIQ version (Lange, 1998). During the period of research a new version PACHIQ- R was developed. It was possible to analyze the data acquired by the old version of the PACHIQ, that contained the same and some additional items as the PACHIQ-R, using the new scoring methods.

The Youth Self Report is a self-report filled in by the adolescent. Adolescents can rate each item on how truly it depicts themselves in the present or in the past six months on a three-point scale. The YSR contains 112 items that measure eight syndromes, of which we used Attention problems and Aggressive behavior. We also used the two broadband scales Internalizing problems and Externalizing problems and the Total problems scale. Reliability and validity have been well established. The

TABLE 1. SAMPLE CHARACTERISTICS

Domain/ Measure	Mean	(SD)	%	*(n)*
Male	-	-	100	(30)
Age at start treatment (years)	16.36	(1.18)	-	-
Ethnicity				
Caucasian-white	-	-	37	(11)
Surinam	-	-	23	(7)
Arabic	-	-	27	(8)
Other, non western	-	-	13	(4)
Diagnosis				
ADHD	-	-	37	(11)
Substance dependence	-	-	47	(14)
Mood disorder	-	-	10	(3)
Autism spectrum disorder	-	-	13	(4)
Psychosis	-	-	6.7	(2)
Number of diagnoses	1.1	(1.0)	-	-
Criminal history				
Age at first offence	14.9	(1.1)	-	-
Number of offences before day treatment	4.7	(4.5)	-	-
Number of violent offences before day treatment	2.7	(2.1)	-	-
Family composition				
Single parent families	-	-	53	(16)
Two parent families	-	-	37	(11)
Foster/adoption parents	-	-	10	(3)
Socioeconomic status				
Low	-	-	63	(19)
Medium	-	-	30	(9)
High	-	-	7	(2)

reliability score in terms of Cronbach's α (as reported by Verhulst, Van der Ende, & Koot, 1997) varied between .57 and .91 for boys on all scales used in this study (Verhulst et al., 1997).

The Child Behavior Check List is the parent version of the YSR and contains 113 questions describing specific behavioral and emotional problems. In this study the subscales Attention problems and Aggressive behavior were used, as well as the two broadband scales Internalizing problems and Externalizing problems. Parents can rate each item on how truly it depicts their child in the past six months on a three-point scale. Reliability and validity have been well established by Verhulst, Van der Ende, and Koot (1996). On the subscales used in this study reliabilities were .64 and higher (Verhulst et al., 1996).

The Buss-Durkee Hostility Inventory is a 40-item true-false self-report questionnaire. Lange, Hoogendoorn, Wiederspahn, and De Beurs (1995a) translated it into Dutch and found two independent factors: overt (direct) and covert (indirect) aggression. Direct aggression represents the combination of physical and verbal aggression. Anger and hostility are the core concepts of indirect aggression. Lange, Pahlich, Sarucco, Smits, Dehghani, and Hanewald (1995b) reported a reliability of .79 on the Direct aggression scale and .83 on the Indirect aggression scale.

The Parent Child Interaction Questionnaire – Revised – Child version is based on the Family Assessment Measure (Skinner, Steinhauser, & Santa-Barbara, 1983), which focuses on dyadic family relationships. Lange (2001), who constructed the questionnaire, found two independent factors: conflict management and acceptation. The first factor represents the positive solving of conflicts between the parent and adolescent; the second relates to parental acceptance and authority. The reliability scores Lange (2001) found lie between .78 and .95 on both scales on the child-mother and child-father versions.

The Questionnaire Family Problems is a 130-item questionnaire covering specific problem areas on the functioning of families. Parents rate their families on a three-point scale ranging from 'applies not at all to our family' to 'clearly applies to our family'. Apart from a quick Screen-score and a Total problem score, nine subscales exist of which we used Hostility and Security (Koot, 1997). Koot (1997) reported a

Cronbach's α of .92 on the Hostility subscale, .84 on the Security subscale and .97 on the Total scale.

The Parent Child Interaction Questionnaire – Revised – Parent version is based on the Family Assessment Measure (Skinner et al., 1983), which focuses on dyadic family relationships. Lange (2001), who constructed the questionnaire, found two independent factors: conflict management and acceptation. The first factor represents the positive solving of conflicts between the parent and adolescent, the second relates to parental acceptance and authority. The reliability scores Lange (2001) found lie between .79 and .93 on both scales on the mother-child and father-child versions.

The National Institute of Mental Health Diagnostic Interview Schedule for Children IV (NIHM DISC-IV) parent and youth versions were used in order to establish the specific psychiatric diagnoses of the adolescent. Fisher, Wicks, Shaffer, Piacentini, and Lapkin (1992) originally developed the DISC-IV in 1992. Ferdinand and Van der Ende (1998) translated it into Dutch in 1998. The DISC assesses 34 of the most common psychiatric diagnoses of children and adolescents and was originally developed for use in large-scale epidemiological surveys. Diagnoses included are: Anxiety disorders, Miscellaneous disorders, Mood disorders, Disruptive behavior disorders and Alcohol and Substance use disorders (Fisher et al.j 1992). The DISC does not cover psychosis or the autism spectrum disorders (Duits & Harkink, 2001), so their occurrence – in six day treatment clients - was identified and diagnosed by a multidisciplinary team (all other disorders are diagnosed with the DISC). Because of overlapping criteria on some DSM-IV diagnoses, the diagnoses were categorized as follows: substance abuse, mood disorders, ADHD, psychosis and autism spectrum disorders. Subsequently, the number of scored categories was counted and dichotomized into none or one comorbid disorder, and two or more comorbid disorders (Kazdin & Whitley, 2006).

The Judicial Documentation System (JDS) was used to establish a criminal history score, which is made up of data on crimes committed in the pretreatment period. The JDS is a nationwide electronic database maintained by the Ministry of Justice which also granted access to the database. The database includes all offenders

convicted at trial. A felony was excluded if the juvenile had been acquitted, or if charges had been dropped. Reasons for the prosecutor to drop charges are for example: lack of evidence, invalidity of the prosecution, or procedural faults made by the prosecutor. Each felony was judged on crime severity according to a severity score method based on the method of Doreleijers (1995, see Appendix 1). According to this method, each crime was scored from 1 to 21, based on the maximum imposable penalty for that crime. Each sequential step in numbers represents an interval of 12 months. Thus, a score of 1 means a maximum penalty up to 12 months, a score of 2 means a maximum penalty from 12 to 24 months, etc. In this study, the crime severity score was calculated for each adolescent in the pretreatment period by adding all individual scores for crimes he was convicted of.

Procedure

As part of their day treatment program, all adolescents completed the above mentioned questionnaires at the start and termination of their treatment. Youths who completed all measurements, received a gift certificate worth ten euros at treatment termination. Parents were also requested to fill in questionnaires prior to their intake meeting and after treatment termination. The questionnaires were sent by mail, accompanied by a return envelope.

Analyses

All scores were entered in SPSS 13.0 for Windows and subscale scores were calculated. Raw scores were used in all our analyses.

Paired T-tests were performed in order to calculate whether the difference between pretreatment and post treatment measurements was statistically significant. Effect sizes were calculated for each t-test using Cohen's d. This was calculated as pretreatment score – post treatment score, divided by the pooled variance of both measurements. How to interpret the resulting effect size is disputable, but the most accepted guideline is that of Cohen (1992) in which 0.2 is indicative of a small effect, 0.5 a medium and 0.8 a large effect size.

RESULTS

Pretreatment and Post treatment analyses

The means, standard deviations, and effect sizes on pretreatment and post treatment measures are presented in Table 2. Table 2 indicates that overall, adolescents showed improvement in the expected direction on all relevant (sub)scales of the CBCL, YSR and BDHI, except on the BDHI scale Direct aggression. This means that adolescents showed fewer problems after completing day treatment, than at the start. The effect sizes were small to medium (.22-.64).

Table 2 also shows that all subscales on the Externalizing problems/Aggression dimension (except the aforementioned BDHI Direct aggression) showed a significant change between pretreatment and post treatment measures. This change was in the expected direction and represents a significant positive treatment effect on the Externalizing problems/Aggression dimension. The Internalizing problems subscales also showed a significant positive treatment effect in the hypothesized direction, as well as most of the Total problem scales.

On Family functioning, parents reported diminished family conflict at the $p < .10$ level of the PACHIQ – Parent version conflict solving. Adolescents reported no change in their family functioning and parents reported no change on acceptance/security on the PACHIQ - Parent version acceptance and QFP security.

DISCUSSION

This study focused on three hypotheses on the effects of a multimodal day treatment program for juvenile delinquents: aggression management should improve, internalizing problems should be reduced and family involvement in the treatment should at least result in less family conflict.

According to parent reports and youth self-reports, respectively CBCL and YSR, aggression problems were reduced, while youth self-reports on the BDHI do not show a decrease in 'direct aggression'. Since parent reports can be considered a more objective outcome in juvenile aggressive and externalizing behavior (Vreugdenhil,

TABLE 2: MEANS, STANDARD DEVIATIONS AND EFFECT SIZES ON PRETREATMENT AND POSTTREATMENT MEASURES.

	Pretreatment		*Post-treatment*				
Domain/ Measure	Mean	(SD)	Mean	(SD)	*t*	(df)[1]	ES[2]
Externalizing problems/Aggression							
BDHI Direct aggression	9.11	(3.71)	9.82	(3.10)	-1.01	(27)	.21
YSR Attention problems	3.44	(2.42)	2.01	(2.00)	4.62	(27) **	.64
YSR Aggressive behavior	5.40	(5.67)	4.15	(4.27)	1.85	(27) *	.25
YSR Externalizing problems	9.19	(9.13)	7.44	(6.90)	1.95	(27) *	.22
CBCL Attention problems	10.36	(6.81)	7.46	(6.20)	2.30	(20) **	.45
CBCL Aggressive behavior	12.12	(7.96)	8.76	(6.61)	2.24	(21) **	.46
CBCL Externalizing problems	18.98	(11.98)	14.12	(10.18)	2.11	(21) **	.44
Internalizing problems							
BDHI Indirect aggression	5.25	(3.24)	4.07	(3.41)	2.14	(27) **	.35
YSR Internalizing problems	5.67	(5.59)	3.85	(4.29)	2.20	(26) **	.36
CBCL Internalizing problems	12.19	(8.44)	8.48	(6.89)	2.36	(21) **	.48
Family functioning							
PACHIQ – C[3] conflict mngt[5]	67.47	(10.41)	68.61	(9.34)	-0.69	(27)	.12
PACHIQ – C[3] acceptation	31.07	(4.58)	31.22	(5.35)	-0.15	(26)	.03
PACHIQ – P[4] conflict mngt[5]	45.63	(7.61)	48.17	(6.43)	-1.63	(22) *	.36
PACHIQ – P[4] acceptation	34.61	(4.96)	34.70	(4.45)	-0.07	(22)	.02
QFP Hostility	11.57	(7.51)	8.95	(7.17)	1.49	(20)	.36
QFP Security	5.33	(3.07)	5.90	(3.88)	-0.68	(20)	.16
Total Problems							
YSR Total	24.60	(18.15)	19.07	(14.67)	2.94	(27) **	.34
CBCL Total	50.57	(29.49)	36.10	(25.88)	2.71	(21) **	.52
QFP Total score	75.43	(39.55)	63.05	(38.28)	1.19	(20)	.32

*Note: [1]N= df + 1 [2] measured in Cohen's d. [3] C = Child version. [4] P = Parent version. [5] mngt = management. **p<.05, one-tailed. *p<.10, one-tailed.*

2003), and a medium shown effect size, aggression management is likely to be improved. The difference between the YSR and BDHI is that the YSR focuses on behavior actually occurring, whereas the BDHI focuses on behavior the juveniles say they will display in certain questioned situations implying an attitude towards aggression rather than acting aggressively. Concerning internalizing problems, both adolescent self-reports (YSR, indirect aggression of BDHI) and parent reports (CBCL) conclude that these problems are reduced significantly after day treatment. This is an important finding since a dysphoric mood can lead to reactive aggression and internalizing problems, which will obstruct social functioning.

A remarkable finding is that although scores on youth self-reports on both YSR and the subscale indirect aggression of the BDHI are very low at baseline (Breuk, Clauser, Stams, Slot, & Doreleijers, 2007), they nevertheless improve significantly. Although juvenile self-reports have the same outcome value as measured in the non-clinical normal population (Breuk et al., 2007; Vreugdenhil, 2003), self-reports still remain helpful in treatment evaluation as a means to measure changes before and after intervention. In this case a significant improvement has occurred according to juvenile self-reports. Although clinicians understand that adolescents with antisocial behavior tend to deny problems before treatment, the clients can admit to feeling better afterwards and show this improvement in their self-report.

Functional Family Therapy is a central element of this multimodal day treatment (Breuk, Sexton, Van Dam, Disse, Doreleijers, Slot, & Rowlands, 2006). Self-report of family functioning by parents and adolescents stems from a different perspective: parents feel worried and rejected by their children, who have delinquent friends, whereas the adolescents report a level of family closeness similar to families with no problems (Dornbusch, Erickson, Laird, & Wong, 2001). While in this study adolescents report no problems, the parents experience at baseline many family problems as measured by parent reports in the PACHIQ and QFP (Breuk et al., 2007). After treatment parents are able to manage conflicts better (PACHIQ). Although statistically the difference is a trend ($p < 0.1$), the small N (24) together with a moderate effect size, indicate that it is a meaningful difference. Another study (Vreugdenhil, 2003) also revealed that only some aspects of family functioning improve after day

treatment. In this study acceptance of the adolescents by the parents did not improve.

The juvenile population of the day treatment program consists of delinquents with a severe criminal history of repeated violent crimes and psychiatric comorbidity, who are not able to maintain a day structure, and who have many family problems. For this population, day treatment is the only alternative to residential treatment. Even after treatment, mental health problems remain and keeping a day structure is a major challenge both for the adolescents and their parents. This means that emotional distress and family burden are a reality after treatment and a better management of family conflict is the most feasible goal for this day treatment population rather than trying to reach a level of 'normal family functioning' thereby frustrating both family members and the treatment team.

This study concludes that aggression and internalizing problems have been diminished and family conflict is managed more adequately.

Limitations

There are two important limitations: the study consists of a small group, and a control group is lacking. Rey et al. (1998) conducted the only study of a day treatment program in which a control group was included. They also applied the CBCL and YSR and found a significant post treatment change in both the treatment group, and the control group, so according to that study, no change could be attributed to the treatment program. In this study, effect sizes were medium, which makes it less probable that the day treatment imposes no additional effect.

Even more important is that the present study consists of a more severe group of juvenile delinquents. No day treatment study of a multimodal day treatment program for juvenile delinquents exists. Furthermore, in most studies on psychopathology in juvenile delinquents, parent reports are missing (Vreugdenhil, 2003).

Finally, the crime recidivism rates of other day treatment programs are worryingly high (Rey et al., 1998; Kiser et al., 1996). Another study carried out at this day treatment program indicated a crime recidivism rate of 25% after one year, for adolescents who completed the program, compared to a 57% recidivism rate after one

year in the early dropout group, which is defined as adolescents leaving the program within three months after the start.

Societal impact

This study reports on the outcome of a multimodal day treatment program for a group of juvenile delinquents. The adolescents were all diagnosed with behavioral disorders, and the majority had other psychiatric diagnoses as well. Violent crime recidivism, family conflicts, a criminal peer group and the lack of a day structure lead within most societies worldwide to long-term detention and/or residential treatment. The day treatment program is an alternative to residential treatment and a history of severe violent crimes should not be a contraindication. If a client is regarded as a potential threat to society and/or if recidivism occurs during the treatment program, cooperation with a local juvenile detention center (JOC, Amsterdam) guarantees the continuation of the day treatment program, while the adolescents are in detention. Over the last three years approximately 80% of the juvenile delinquents have completed the day treatment program.

Apart from being an alternative to residential treatment and/or detention far away from home, this day treatment is located in the middle of the community. Parental involvement is pursued by the implementation of Functional Family Therapy: the treatment program is brought into their homes, and conflicts within the family are treated immediately from the onset of treatment. The difficulty of transferring learned social skills to society – one of the major obstacles in residential settings - is overcome, since adolescents practice these skills every day in a real world setting and are able to make supervised mistakes that are positively used in the treatment process.

The authors confirm that all the research done for this study meets the ethical guidelines, including adherence to the legal requirements of the Netherlands. They report no conflicts of interest.

Appendix 1

Computing the criminal history score

In computing the criminal history score on all felonies included in this paper, the maximum imposable penalty in years/days of imprisonment, according to penal code, was noted.

In table 4, the maximum imposable penalty and the criminal history score according to this penalty, are presented.

A criminal history score could be assigned to each felony using this method. In case of an attempt to commit a felony or being an accessory to a felony, the maximum penalty is reduced by 1/3 (according to penal code), and a criminal history score is given for this reduced maximum penalty.

TABLE 1. CRIMINAL HISTORY SCORES ACCORDING TO MAXIMUM PENALTIES

Maximum penalty (imprisonment)	(days)	Crime severity score
Up to 1 year	(1-364)	1
From 1 up to 2 years	(365- 729)	2
From 2 up to 3 years	(730-1094)	3
From 3 up to 4 years	(1095-1459)	4
From 4 up to 5 years	(1460-1824)	5
From 5 up to 6 years	(1825-2189)	6
From 6 up to 7 years	(2190-2554)	7
From 7 up to 8 years	(2555-2919)	8
From 8 up to 9 years	(2920-3284)	9
From 9 up to 10 years	(3285-3649)	10
From 10 up to 11 years	(3650-4014)	11
From 11 up to 12 years	(4015-4379)	12
From 12 up to 13 years	(4380-4744)	13
From 13 up to 14 years	(4745-5109)	14
From 14 up to 15 years	(5110-5474)	15
From 15 up to 16 years	(5475-5839)	16
From 16 up to 17 years	(5840-6205)	17
From 17 up to 18 years	(6206-6569)	18
From 18 up to 19 years	(6570-6934)	19
From 19 up to 20 years	(6935-7299)	20
From 20 up to 21 years	(7300-7664)	21

CHAPTER 6

BREAKING THE CYCLE: PREVENTING RE-INCARCERATION OF JUVENILE DELINQUENTS THROUGH FAMILY FOCUSED DAY TREATMENT

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submitted

ABSTRACT

Objective: to investigate whether a forensic psychiatric day treatment program (DTP) turned out to be more effective at follow up compared to follow up after detention on remand, in keeping adolescents at home, preventing re-placement in a correctional facility, reducing violent and general crime recidivism, and attending school and/or work,

Method: Juvenile delinquents (N=37) and their parents, after imprisonment referred to a mental health day treatment center, were compared to a matched control group of juvenile delinquents who received care as usual after detention on remand (N=36).

Results: At twelve months follow up DTP adolescents, compared to the control group had a more favorable living situation (85% compared to 51%), remained fewer days in a correctional facility (41 compared to 116 days), committed 40-50% fewer violent crimes and crimes of less severity during twelve months follow up. More juveniles attended school or had work (60% compared to 41%). General recidivism did not differ between the groups.

Conclusion: Day treatment was able to keep adolescents within the community, to prevent re-placement in a correctional facility, to reduce violent and severe crime recidivism, and to increase school or work attendance, but not to reduce general recidivism.

INTRODUCTION

Juvenile delinquency has become a societal problem with a high priority on the political agenda in the Netherlands. The last ten years have shown a more than 200% increase of violent criminal acts by juveniles (WODC, 2007). In order to safeguard society from these youngsters, there has been both societal and political pressure calling for prolonged incarceration and compulsory residential treatment.

Nevertheless, empirical findings demonstrate that both plain detention (Myner, Santman, Cappelletty & Perlmutter (1998) and compulsory residential treatment as penal measures lead to negative consequences (e.g. learning antisocial behavior, losing parental support) and are related to high recidivism rates (50-55% after 2 years) (Winokur, Smith, Bontrager & Blankenship, 2008; Wartna, Kalidien, Tollenaar, & Essers, 2006). Imprisonment has a criminogenic effect: once incarcerated, offenders end up in adult prison facilities more often than offenders who have been convicted for similar offenses without imprisonment (Nieuwbeerta, Nagin, & Blokland, 2007). Compulsory residential treatment is often prescribed for juvenile delinquents committing severe crimes, but has other disadvantages: Adolescents are placed in facilities often far away from their home environment and families so that parents cannot be involved in their treatment. The generalization of social skills learned inside the facility poses a major problem as well. In addition to these arguments, the high costs of residential treatment have to be considered as well.

Another problem in the group of juvenile delinquents who commit more serious offenses and/or do so more frequently, is the high prevalence of psychiatric disorders (Doreleijers, Moser, Thijs, Engeland, & Beyaert, 2000). The most frequently occurring psychiatric disorders among juvenile offenders are ADHD, substance abuse, and internalizing disorders (Teplin, Abram, McClelland, Dulcan & Mericle, 2002; Vreugdenhil, Doreleijers, Vermeiren, Wouters & Van den Brink, 2004; Vermeiren, De Clippele & Deboutte, 2000). Especially ADHD in combination with disruptive behavior disorders (CD and ODD) has been identified as a risk factor for the exacerbation of antisocial behavior (Taylor, Chadwick, Heptinstall, & Danckaerts, 1996; Loeber, Green, Keenan, & Lahey, 1995). This implies that for a majority of the

juvenile delinquents in institutional facilities psychiatric care is needed during their incarceration, not only in order to reduce the risk for criminal recidivism but also because there is a medical need for treatment. However, psychiatric care is often unavailable or inadequate (Grisso & Schwartz, 2003; Desai, Goulet, Robbins, Chapman, Mogdole, & Hoge, 2006; Algemene Rekenkamer, 2007).

Treatment alternatives should target (most)risk factors related to the development of criminal recidivism, (Karnik & Steiner, 2007). During treatment the juvenile's contact with his social network should stay intact in order to reduce generalization problems (Lahey, Moffitt and Caspi, 2003). For these reasons forensic psychiatric day treatment can be considered a possible alternative to placement in a correctional facility or residential treatment. Disregarding the negative consequences of incarceration and residential treatment, might result in an increase in frequency and severity of crimes. So in order to prevent more severe violent crime from occurring, priority should be given to keeping juveniles within the community (Sullivan, Veysey, Hamilton, & Grillo, 2007).

This study investigates the effect of a family oriented, multimodal day treatment program for juvenile delinquents who had been incarcerated for having committed severe violent crimes. At trial they had been sentenced to day treatment. The outcome of the treatment group will be compared to the outcome of juvenile delinquents who were selected during detention on remand and who (a) did not receive mental health treatment after imprisonment, but care as usual delivered by juvenile probation officers, or (b) were sent to a compulsory residential facility after detention on remand. Both groups had been sentenced to imprisonment and/or compulsory residential treatment or day treatment, which means this is a group of juvenile delinquents having committed serious crimes. The subjects of the treatment group suffered from psychiatric comorbidity and major problems in functioning within the family and at school.

The main aims of the day treatment program within this study are improving family functioning and reducing aggression problems of the adolescent. The specific main goals of the day treatment program are:

1. Reducing out-of-community placement

2. Reducing violent criminal recidivism by improving aggression management and diminishing family conflict.

Hypotheses

Follow-up data collection took place twelve months after the juvenile either finished the day treatment program or after detention on remand. The following hypotheses were examined:

Hypothesis 1:

After having completed the day treatment program, at follow up more juvenile delinquents will live within the community with their parents/family or on their own, compared to juvenile delinquents who did not receive mental health treatment after detention on remand.

Hypothesis 2:

After having completed the day treatment program, juvenile delinquents will spend fewer days in a juvenile justice facility during the follow-up period, compared to juvenile delinquents who did not receive mental health treatment during follow up after detention on remand.

Hypothesis 3:

After having completed the day treatment program, juvenile delinquents will commit fewer violent offenses during the follow-up period, compared to juvenile delinquents who did not receive mental health treatment after having left the detention center during follow up.

Hypothesis 4:

After completing the day treatment program, juvenile delinquents will commit fewer general offenses during the follow-up period, compared to juvenile delinquents who did not receive mental health treatment after having left the detention center during follow up.

Hypothesis 5:

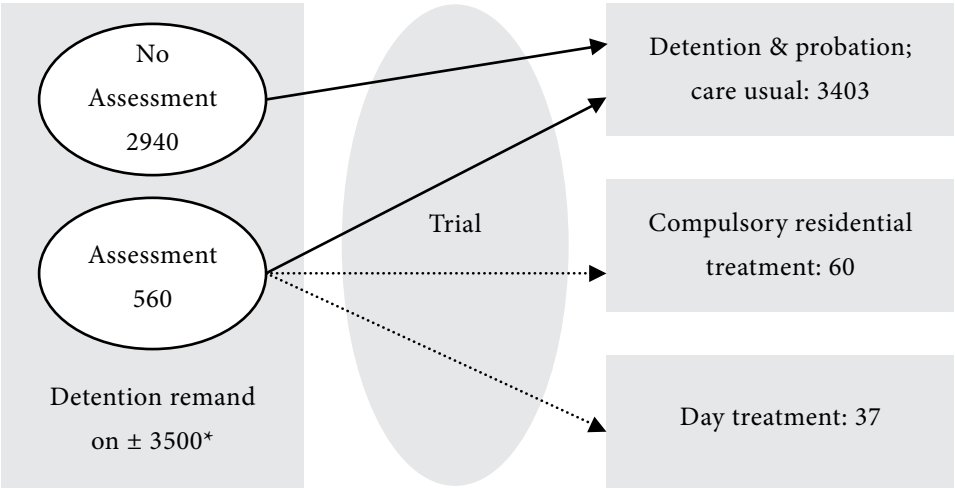
After having completed the day treatment program, at follow up, more juvenile delinquents will attend school or work, compared to juvenile delinquents who did not receive mental health treatment after detention on remand.

METHOD

Participants

Participants were 37 juvenile delinquents who were sentenced by the judge to imprisonment and a day treatment center after imprisonment. The juveniles started treatment between August 2002 and October 2005 and terminated treatment between October 2002 and September 2006. The matched control group consisted of 36 juvenile delinquents who had been selected during detention on remand and who (a) did not receive mental health treatment after imprisonment, but care as usual delivered by juvenile probation officers, or (b) were sent to a compulsory residential justice facility after detention on remand. They were matched on four criteria: age, sex, ethnicity and criminal history.

FLOWCHART 1. ALL JUVENILE DELINQUENTS IN DETENTION ON REMAND IN AMSTERDAM, 2003-2005

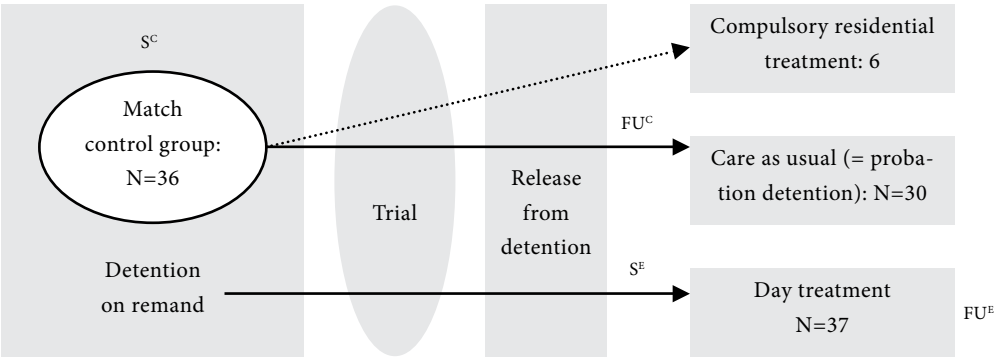


** Estimated based on 150 places in juvenile justice institutes, mean stay 40 days.*

As can be seen on flow chart 1, first psychological assessment of incarcerated juvenile delinquents was from 2002-2005 not a standard procedure; only a minority was psychologically assessed. A recent report on psychological assessment in justice facilities concluded that there are many shortcomings in these settings. One of them was that psychiatric evaluation and treatment in these facilities were insufficient and inadequate (Inspectierapport, 2007).

Second there were no criteria for selecting no treatment/care as usual, day treatment, compulsory residential treatment, or other treatment possibilities. As shown in flow chart 1, a small minority received compulsory residential treatment or day treatment. Dutch studies comparing psychopathology of juvenile delinquents sentenced to compulsory residential treatment or to plain detention (Algemene Rekenkamer, 2007; Vreugdenhil, 2003) showed no differences. Also juvenile delinquents that have or have not been selected for assessment do not differ concerning psychopathology (Doreleijers, 1995). So the selection of juvenile delinquents for the day treatment program can be considered quite arbitrary.

FLOWCHART 2. SELECTION PROCEDURE FOR EXPERIMENTAL GROUP AND CONTROL GROUP



S^E: *Experimental group was selected after trial, at admission to day treatment*

S^C: *Control group was selected, based on the matching criteria, during detention on remand*

FU^E: *Follow up of experimental group started after day treatment*

FU^C: *Follow up of control group started after release from detention*

The treatment group was selected by including all juvenile delinquents sentenced to the day treatment program from 2002- 2005 after detention and after trial. Control group juveniles were selected before their trial. Since the time to trial was usually very long, most cases eligible for a control group had already been released from the detention center immediately after the trial, making them unavailable for the study. Therefore the control group had to be selected before trial, during detention on remand.

Within the Dutch legal system a randomized trial was not possible since judges decide independently what measures should be taken with an individual juvenile delinquent. In most cases judges sentence juvenile offenders committing severe crimes to imprisonment and order a juvenile probation officer to guide the youngster after his release from the detention center. Therefore, considering the small minority of all incarcerated juvenile delinquents sent to day treatment, a matched control was considered to be a viable alternative to a randomized trial.

Following the Myers study (2000) treatment group and control group were matched on four important criteria: sex, age, ethnicity, and criminal history. Criminal history was measured by the number and the character of the offenses. After matching, both groups were compared on several other characteristics: (a) days in prison before entering the study, (b) psychopathology, and (c) psychopathy.

The study group consisted of 37 juvenile delinquents, included between 2002 and 2005. Day treatment adolescents without a criminal history were excluded. The control group consisted of 36 juvenile delinquents who had been detained on remand for at least two months, in one of the two closed juvenile detention centers in Amsterdam (JOC and 't Nieuwe Lloyd). Informed consent was obtained from all participants and from the parents of the study group. For the control group only the parents of adolescents under the age of 16 had to give their consent. Furthermore, juveniles in both groups were compared on demographic variables and several aspects of criminal history. In these domains, no differences were found between the groups either. Both study and control groups were comparable on most measures. The study group however reported more abuse of alcohol and drugs. The sample characteristics of the study group and the control group are shown in table 1.

TABLE 1. SAMPLE CHARACTERISTICS

Domain/ Measure	*Day treatment*			*Detention only*
	Total group (n = 37)	Com-pleters (n = 28)	Drop outs (n = 9)	(n = 36)
% Male	100	100	100	100
Mean age at start of treatment	16.9	17.0	16.8	16.7
in years (SD)	(1.15)	(1.21)	(.96)	(1.37)
Ethnicity				
% Caucasian/white	27	29	22	32
% Surinam	27	14	44	27
% Arabic (mainly Moroccan)	19	25	22	19
% Other non-western background	14	14	11	10
% Other western background	8	11	0	5
% Turkish	5	7	0	5
Criminal history				
Mean age at first crime in years	15.0	15.2	14.3	14.9
(SD)	(1.26)	(1.26)	(1.02)	(1.60)
Mean number of felonies prior to	5.6	5.0	7.6	6.3
treatment/detention (SD)	(6.81)	(4.82)	(11.16)	(4.53)
Mean crime severity score prior to	37.6	34.3	47.8	41.9
treatment/detention (SD)^	(46.71)	(38.36)	(67.46)	(29.57)
Relative severity score of committed	6.7	6.5	7.2	6.9
felonies (SD)^^	(3.33)	(3.52)	(2.8)	(2.73)
% of juveniles who committed severe violent felonies prior to treatment/ detention	62	61	67	57

Domain/ Measure	*Day treatment*			*Detention only*
	Total group (n = 37)	Com-pleters (n = 28)	Drop outs (n = 9)	(n = 36)
Correctional facilities history				
% of juveniles who had been in a correctional facility at least once	97	96	100	100
Mean number of days in correctional facilities prior to treatment/detention (SD)	193.8 (33.29)	187.6 (34.32)	232.7 (264.7)	227.1 (59.0)
Psychopathology in addition to deviant behavioral disorders	According to DISC- C			According to DPS
% ADHD	8	4	22	11
% Mood/anxiety disorders	14	11	22	22
% Substance abuse	46	43	56	28
% Psychosis	5	7	0	3
Number of co-morbid categories in addition to deviant behavioral disorders				
% No co-morbid category	49	54	33	58
% One co-morbid category	35	32	44	25
% Two or more co-morbid categories	16	14	22	17
Psychopathic traits: YPI total score (SD)	93.1 (23.1)	93.5 (22.70)	91.8 (26.46)	87.9 (18.7)

Note: ^ See appendix 1 for method

^^ Relative severity score of committed felonies is calculated by dividing the total crime severity score by the number of committed felonies.

The study setting

The forensic psychiatric day treatment program started in 1997 as an alternative to regular judicial interventions that had yielded disappointing results (Bartels, Parker Brady, & Doreleijers, 1999). Since 2003 this day treatment program has been augmented by involving parents as part of the program. Family orientation became the core characteristic of the day treatment program in this study. The day treatment program focuses on the family by introducing functional family therapy (FFT) at the beginning of treatment (Alexander & Sexton, 2002; Sexton & Alexander, 2003). FFT encompasses three different phases: the engagement/motivation phase, the behavior change phase, and the generalization phase. FFT targets negative family processes and reducing out-of-community placement will be a more specific goal.

In addition to family orientation, individual disorders could be identified and separately treated by several evidence based treatments for behaviorally disordered adolescents. In the second stage of the treatment, teaching individual skills, aggression management, and treating psychiatric disorders were the main target (Breuk, Sexton, Van Dam, Disse, Doreleijers, Slot, & Rowlands, 2006). Cognitive behavior therapy (CBT) and medication were used for disorders such as ADHD, impulse control disorders, internalizing disorders and personality development disorders (Weisz & Hawley, 2002; Diamond & Josephson, 2005; Vermeiren, Jespers, & Moffit, 2006; Karnik & Steiner, 2007).

In addition to extensive psychiatric assessment, the individual treatment takes into account the established diagnosis (Doreleijers, Moser, Thijs, Van Engeland, & Beyaert, 2000). This means providing psycho-education to both adolescents and their parents, motivating and prescribing medication when necessary (e.g., methylphenidate in ADHD), and providing individual cognitive psychotherapy and/or social skills training. Aggression management became a more central target in this second stage of treatment because of the main goal of preventing violent crime. Cognitive behavior therapy was targeted towards social skills development and aggression management (Kazdin, 1997; Muller & Colijn, 1999; Dodge, 1986).

Measurements

The National Institute of Mental Health Diagnostic Interview Schedule for Children IV (NIHM DISC-IV) youth version was used in order to establish the specific psychiatric diagnoses of the adolescent. Fisher, Wicks, Shaffer, Piacentini, & Lapkin (1992) originally developed the DISC-IV in 1992. Ferdinand & Van der Ende (1998) developed a Dutch version in 1998. In the control group, the DISC Predictive Scales (DPS) were used to screen for psychiatric diagnoses. This instrument has demonstrated accurate screening in cases of specific DSM-IV disorders (Lucas et al., 2001).

The Youth Psychopathy Inventory (YPI) is a self-report questionnaire designed to assess the core traits of the psychopathic personality constellation (Andershed, Kerr, Stattin, & Levander, 2001). The reliability of the Total YPI scale has been evaluated in one study (Das, De Ruiter, Lodewijks, & Doreleijers, 2007).

The Justice Documentation System (JDS) was used to establish a criminal history score, which consists of data on crimes committed in the pre-treatment period and the recidivism rates during a twelve-month follow up. The JDS is a nationwide electronic database maintained by the Ministry of Justice which granted access to the database. The database includes all offenders convicted at trial. Furthermore, each criminal act was given a crime severity score by means of an assessment method, used by the Ministry of Justice (Wartna, Blom, & Tollenaar, 2004; Laan & Essers, 1990). In this study, an absolute crime severity score was calculated for each adolescent by adding al individual scores for crimes he was convicted of in the pretreatment period and in the recidivism period. Also a relative crime severity score was calculated by dividing the absolute crime severity score by the number of crimes committed in the recidivism period.

Ten Uitvoer Legging Penitentiair programma (TULP), a documentation system of the Ministry of Justice registers, among other data of incarcerated juveniles, the stay of juveniles within closed justice facilities. This system was used to register the length of stay within a justice facility of the treatment group and the control group, before inclusion in the study, and during the twelve-month follow up.

To gather information on the place of residence, and the school/work situation twelve months after ending day treatment and/or detention on remand, a Youth Information List (YIL) (Slot & Jagers, 1992) was filled in by the juvenile probation officer at

that time. If this was not possible, parents were interviewed by telephone and were asked the same questions. The living situation (place of residence) was considered 'favorable' if the adolescent lived with his parents or family or on his own, and 'not favorable' if the adolescent was placed outside the community (incarceration, compulsory residential treatment by penal law or civil protection), or if he was homeless. The work/school situation was considered 'favorable' if the adolescent attended school and/or work, and 'not favorable' if the adolescent did not attend school or work (or when incarcerated).

Procedure

All adolescents completed the above mentioned questionnaires at the start of day treatment or - for the control subjects - two months after having been incarcerated.

The control group was tracked by the TULP system in order to register when they had left prison. Twelve months after finishing day treatment (experimental group) or after detention on remand (control group), the living situation, days of stay in a closed justice facility, and school/work situation were measured. Criminal recidivism during the twelve months after ending day treatment or leaving the detention center was also measured.

Within the control group, juvenile delinquents were selected two months after detention, but before trial. After trial the judge could (a) sentence the adolescent to several months up to a maximum of two years of incarceration or (b) order a long term period of compulsory residential treatment by penal law or as a civil protection measure. The majority (30) of the incarcerated juvenile delinquents were sentenced to plain detention. Their follow up started at their release from imprisonment. Six juvenile delinquents were sentenced - after being included in the control group - to long-term compulsory residential treatment. This long-term sentenced group was included starting with their follow up twelve months after inclusion during detention on remand. This twelve month period was comparable to the average duration of the day treatment in the experimental group. This means that the follow up of the long term sentenced group ranged from twelve to 24 months after inclusion. Data were collected concerning days in a closed justice facility, place of residence, and school/work situation. They were excluded from criminal recidivism follow up since, due to their incarceration period, they would not be able to commit crimes during the follow up period.

Analyses

The main analysis is an 'intention to treat analysis', comparing the total day treatment group to the control group. A second analysis is a 'completer analysis' between the participants who completed day treatment and the control group.

- *Chi square test*

  Differences in place of residence after twelve months, general and violent criminal recidivism during the twelve-month follow up, and school/work after twelve months of follow up, were analyzed using the chi square test. The significance level was set at $p < .10$ due to the small N(of subjects), even though this adjustment resulted in increasing the risk of making type I errors (Sacket, Haynes, Guyatt & Tugwell, 1991). Effect sizes and odds ratios were calculated for each chi square test carried out.

- *Mann-Whitney test*

  The distribution of the length of stay in a closed justice facility during the follow up period appeared to be non-normal. After adjustment, the data were still not normally distributed, so a non-parametric test had to be used. Differences between the treatment group and control group were tested using the Mann-Whitney test.

- *ANOVA*

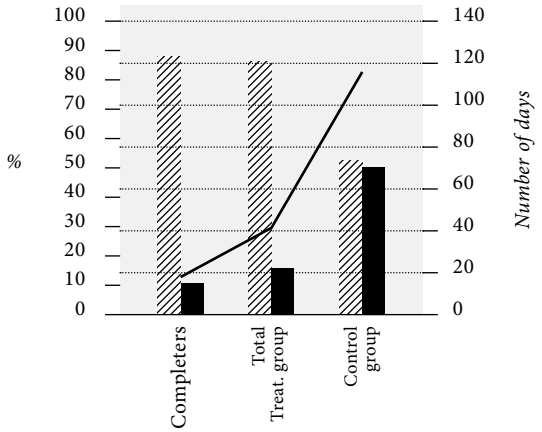
  The severity of the repeated offenses during follow up was compared between the treatment and the control groups using ANOVA, after transforming severity into z- scores.

RESULTS

Characteristics of both treatment group and control group have been described in table 1. Within the day treatment group 28 out of 37 participants completed day treatment, i.e. 75.7%. Nine participants dropped out because of a lack of compliance and/or use of physical violence during treatment or they had repeatedly committed crimes during the period of day treatment.

FIGURE 1. ALL OUTCOMES: COMPARISON BETWEEN COMPLETERS, TOTAL TREATMENT GROUP AND CONTROL GROUP ON LIVING SITUATION, RECIDIVISM AND VIOLENT RECIDIVISM, SEVERITY OF RECIDIVISM AND STAYING AT SCHOOL OR WORK

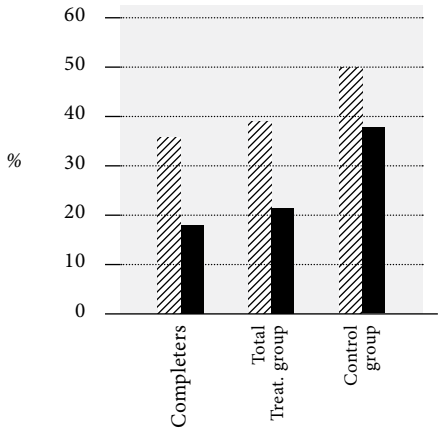
LIVING SITUATION



Favorable
Unfavorable
No. of days in corr. facility

Note 1: favorable living situation = living independently or with parents or family; unfavorable living situation = placed outside community or homeless; living situation: $p < .01$; days in correctional facility $p < .01$)

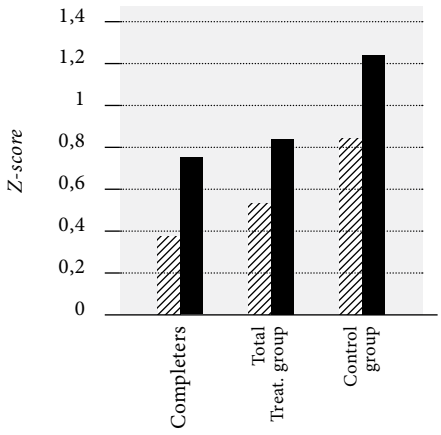
RECIDIVISM AND VIOLENT RECIDIVISM



Total recidivism
Violent recidivism

Note 2: Total recidivism: N.S.; Violent recidivism: $p < .10$

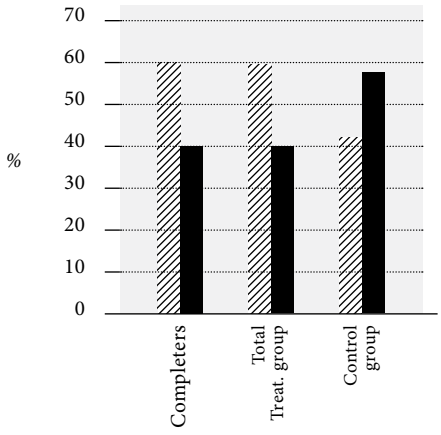
SEVERITY RECIDIVISM



Relative severity score
Crime severity score

Note 3: Crime severity score = based on maximum imposable penalty of a particular felony, the score is the sum of all individual CSS scores in the recidivism period; relative severity score = CSS/number of committed offenses. In this way the average severity score per felony was calculated: p < .10.

STAYING AT SCHOOL OR WORK



Favorable
Unfavorable

Note 4: p < .10

Staying within the community at twelve months of follow up:

85% of the total DTP group and 89% of the completer group had a favorable post treatment living situation, compared to 51% of the control group. Both differences (total DTP group vs. control group and completer treatment group vs. control group) are significant, $\chi2$ (1, n = 69) = 9.107, p < .01 and $\chi2$ (1, n = 62) = 9.788, p < .01 with medium effect sizes (V = .363 and .397). Based on the odds ratio, juveniles in the treatment group were 5.48 times (95% CI: 2.07 – 14.47) more likely to have a favorable living situation than juveniles in the control group. For the treatment completers, the odds ratio was 7.56 (95% CI: 2.39 – 23.88).

During the follow-up period the average length of stay of each participant within a closed justice facility was 41 days for the total day treatment group and 19 days for the completer group, compared to 116 days for the detention only group. According to the Mann-Whitney test, juveniles in the control group (Mdn = 27, range: 0-365) spent more time within a closed justice facility during the follow up period than juveniles in the treatment group (Mdn = 0, range: 0-236), U = 465.00, p < .01 as well as juveniles in the completer treatment group (Mdn = 0, range: 0-208), U = 292.00, p < .01.

Criminal recidivism at twelve months of follow up: general recidivism, violent recidivism and severity of recidivism.

General recidivism during follow up of the total day treatment group was 39%, of the completer group 35%, while within the control group adolescents were convicted in 50% of the cases, resulting in non significant differences, $\chi2$ (1, n = 66) = .820, NS and $\chi2$ (1, n = 58) = 1.205, NS.

Violent offense recidivism varied from 22% and 18% in the total day treatment and completer groups to 37% in the control group. Both differences (total treatment group vs. control group, and completer treatment group vs. control group) were significant, $\chi2$ (1, n = 66) = 1.665, p < .10 and $\chi2$ (1, n = 58) = 2.565, p < .10 with small effect sizes (V = .159 and .210). Based on the odds ratio, juveniles in the control group were two times more likely to have committed a violent crime during the follow-up period than juveniles in the treatment group (95% CI: 0.68 – 5.97). Compared

to the treatment completers, the juveniles in the control group were 2.7 times (95% CI: 0.78 – 9.01) more likely to have committed a violent crime during the follow-up period. However, the confidentiality intervals suggest these results should be interpreted with much caution and the possibility that the found differences between the groups occurred coincidental should be considered .

An effect was also found on the relative severity score of the recidivism crimes that were committed - the mean crime severity score per recidivism offense. The total DTP group (*mean z-score*: .517), and the completer group (*mean z-score*: .363) had a lower average relative severity of the recidivism offenses committed as compared to the detention only group (*mean z-score*: .827), F (1, 27) = 1.954, $p < .10$, with a medium effect size ($\eta = .067$) and F (1, 23) = 2.298, $p < .10$, with a medium effect size ($\eta = .091$). There was no significant effect on the absolute score of the severity of the recidivism crimes committed, between the total DTP group (*mean z-score*: 0,83), the completer group (mean z-score: 0,74) and the detention only group (*mean z-score*: 1,25).

School and/or work status at twelve months of follow up:

There was a small difference (small effect size, odds ratio total group: 1.95 [95% CI: 0.74 – 5.15], odds ratio completer group: 2.00 [95% CI: 0.71 – 5.68]) in attending school or work between the total day treatment group/completer group, 59-60% and the detention only group, 43% , $\chi 2$ (1, n = 67) = 1.825, $p < .10$ and $\chi 2$ (1, n = 60) = 1.714, $p < .10$. However, the confidentiality intervals suggest these results should be interpreted with much caution and the possibility that the found differences between the groups occurred coincidental should be considered.

DISCUSSION

This study compares five modes of outcome of day treatment for juvenile delinquents after incarceration, with incarcerated youths after detention on remand. At twelve months follow up, day treatment had better results on four outcome measures: (a) staying within the community by living at home more often, (b) staying within a closed justice facility for a shorter period of time, (c) committing fewer violent offenses, and (d) attending school or work. General offense recidivism after twelve months did not differ. These conclusions were independent of excluding dropouts from the DTP group; only effect sizes for the completer group were slightly raised.

The strongest positive effects of day treatment were on the living conditions: at follow up, 85% of the day treatment group lived at home with parents or family or lived on their own, compared to 51% in the control group. This is a remarkable result since both groups were previously incarcerated and had a similar criminal history before the study. Apart from cost savings, staying within the community and staying out of a criminogenic closed justice facility is considered a necessary step in treating juvenile delinquents (Sullivan et al., 2007), and preventing an adult criminal career (Nieuwbeerta et al., 2007).

Staying within the family and the community is one of the main objectives of functional family therapy. Reducing both the percentage of violent crimes and the severity of recidivism is an important result, since the sample studied consists of incarcerated juvenile delinquents most of whom had repeatedly committed severe violent crimes. The reduction of violent offenses is 40% for the whole treatment group and 50% for the completer group.

Although the effect on violent criminal recidivism was a meaningful effect, it should be kept in mind that because of the small sample size in this study, differences were considered significant at $p < .10$ and the effect sizes were small. While there were some favorable results on school or work attendance, the effect size was also small: 40% of the day treatment group did not attend school or work one year after completing treatment.

Limitations

This study does not apply a randomized controlled design, posing the question whether the groups were truly comparable. Within the Dutch legal context, this study design provided the only way to study the treatment outcome of this group of juvenile delinquents, since judges independently decide on treatment for individual juvenile delinquents. After a match control procedure no differences were found between the two groups, therefore the experimental and control group similar on characteristics measured. Studies comparing juvenile delinquents in plain detention to juveniles in (residential) treatment also proved these groups to be comparable. Since only a very small group of all possible candidates was designated for day treatment after imprisonment, the control group selected during detention on remand is an appropriate control group.

Another limitation is the relatively small sample size of the study group (N=37). Nevertheless the outcome of this study is important, since to our knowledge, no day treatment evaluation studies of juvenile offenders committing severe violent crimes have become available yet, while evidence based treatment is needed to successfully prevent juveniles from embarking upon an adult criminal career.

All juvenile delinquents sent to the day treatment program between 2002 and 2005 were included, which resulted in the inclusion of 37 subjects. Because of the sample size, it was decided that the level of significance of $p < 0.10$ offered the best alternative. Accepting a level of significance at $p < .05$, would result in too big a risk of reducing power and making type II errors (Sacket, et. al, 1991). Replication of the study is needed to further elaborate on the effects of this first study on the effect of a day treatment program for persistent juvenile offenders.

Even the day treatment group of juvenile delinquents still showed a high level of recidivism, especially general recidivism (39%) and a high percentage of having no school or work (40%). This can be considered a challenge for future day treatment programs: although there are focused programs on individual problems (e.g., aggression, comorbidity), and FFT for families, a school program was still under development during the current study.

Additionally, the day treatment program lacked a proper examination of and

interventions with the juvenile's social network, including (criminal) peers. So the day treatment program should develop methods to deal with these issues in the multimodal treatment program.

Societal consequences

Within society there is political pressure to incarcerate juvenile delinquents. This study, however, shows that mental health alternatives have better results. It specifically supports the plea for intensive multifocal family focused treatment. Since the group consists of persistent juvenile delinquents the results are promising.

Another finding is that day treatment can also serve as an alternative for long term residential treatment in closed justice facilities. Day treatment seems to be cost effective given the decrease in duration of stay in closed justice facilities within twelve months after treatment or initial detention: 116 days in the control group compared to 41 days in the day treatment group. Finally a major problem of patients in residential facilities is to generalize learned skills to society, and to work with families. Family focused day treatment should therefore be considered an alternative, both as an aftercare program after incarceration and as an alternative to residential treatment in a closed facility.

CHAPTER 7

GENERAL DISCUSSION

INTRODUCTION

This thesis describes a study on the effectiveness of a forensic psychiatric day treatment program for juvenile delinquents. The aim of this program is to improve psychosocial functioning of both the individual adolescent and his/her family, and at the same time reduce criminal recidivism, especially of violent crimes, and psychiatric symptoms.

The study was initiated in 2003 when the first step was taken to set up an evidence based day treatment program, especially targeting the reduction of psychiatric symptoms (internalizing disorders, ADHD), building social skills, improving aggression management (reducing aggression), and improving family functioning (especially diminishing family conflict). The day treatment group was compared to a control group selected during detention on remand (a) who received care as usual from juvenile probation services after imprisonment, or (b) who were sent to a compulsory residential facility after detention on remand. Post treatment measurements were made, and follow-up figures were gathered after one year.

The results of the evaluation study will be described and will be reflected upon. After the discussion of the results the limitations of the study will be considered. This chapter will conclude with recommendations for further research, and for the ongoing development of the day treatment program. Finally the societal implications will be discussed.

RESULTS

The results related to the first five hypotheses are reported in the fifth chapter of this thesis. The hypotheses concerned the following differences between the treatment group and the control group at twelve months follow up: (1) more living at home instead of being homeless, being incarcerated or receiving residential treatment, (2) fewer days within a justice facility, (3) less violent and severe crime recidivism (day treatment program vs. control group after imprisonment), (4) less general crime recidivism (day treatment program vs. control group after imprisonment), and

(5) more school and/or work.

For the day treatment group the results will be mentioned both for the whole treatment group and separately for the completers (i.e. the whole treatment group without the juveniles that dropped out of treatment). The results can be summarized as follows:

- More juveniles were living in the community (i.e. living at home with their parents or families or living on their own) at one year follow up after the day treatment program (DTP), compared to the control group. Eighty five percent of the treatment group lived at home, compared to 51% of the control group. The same tendency can be found in differences in stay within a juvenile justice facility during 12 months of follow up. The average stay was 41 days for the day treatment group, compared to 116 days for the control group. The completer group stayed, on average, 19 days within a juvenile justice facility during follow up (hypotheses 1 and 2).
- Violent crime recidivism was also reduced in the DTP group, compared to the control group after imprisonment. DTP youths committed 40% fewer violent crimes at one year follow up, with the completer group reporting 50% fewer violent crimes. However, this effect was small and the possibility that these differences occurred coincidentally (as opposed to being an effect of day treatment) should be considered. In addition, criminal recidivism of the DTP group was less severe compared to that of the control group after imprisonment. This effect can be considered moderate and more reliable (hypothesis 3).
- No differences were found in general offense recidivism at one year follow up between the DTP group (39%, completers 35%), and the control group after imprisonment (50%) (hypothesis 4).
- The DTP group attended work or school more often at one year follow up compared to the control group. However, the effect was small: at one year of follow up 40% of the DTP group did not attend school or work (hypothesis 5).

The results of the last three hypotheses (6, 7, 8) are described in chapter four of this thesis. In summary, the outcome of the DTP group directly after finishing treatment was:

- Aggression problems measured by both youth self-reports and parent reports were reduced (hypothesis 6).
- Internalizing problems and ADHD symptoms measured by both youth self-reports and parent reports were reduced (hypothesis 7).
- Family conflicts after the DTP as measured by parent reports were reduced (hypothesis 8).

Promising effects

This study has focused on four outcome modes of a DTP for juvenile delinquents after incarceration, compared to incarcerated youths who only received care as usual by juvenile probation officers or compulsory residential treatment after detention on remand.

The strongest positive effect of the DTP was that more juvenile delinquents stayed within the community. Apart from cost savings due to fewer days of stay within a closed juvenile justice facility, staying within the community and out of criminogenic closed justice facilities may contribute to preventing an adult criminal career. Since the study group consisted of a group of previously incarcerated juvenile delinquents, a majority of whom had repeatedly committed severe violent crimes, the reduction of violent crime by 40 to 50% is a promising result. The effect on violent criminal recidivism is clinically relevant, although it should be noted that the effect was small and differences (after day treatment) may have occurred coincidentally.

The DTP encompasses a multimodal treatment program with evidence based components (functional family therapy [FFT], aggression replacement training [ART]) as well as other elements (support by sociotherapists, creative therapy). However, it remains unclear whether the above mentioned effects can be attributed to FFT (keeping the juvenile within the community, reducing conflict), or ART (reducing violent crime). Therefore, the effectiveness of the various elements of the DTP has to be tested in future research.

No or minimal effects

General criminal recidivism was not reduced in the treatment group, compared to the control group. The findings of the outcome of the DTP suggest that the program is more successful in treating violent crime than general crime. Most probably, the DTP was successful in reducing violent crime by targeting reduction of family conflict and, on an individual level, by improving aggression management and diminishing psychiatric comorbidity. Especially reducing ADHD symptoms could be of importance in preventing violent crime, since ADHD together with disruptive behavior disorders is associated with an exacerbation of antisocial behavior (Loeber, Green, Keenan, & Lahey, 1995). Whether treatment of ADHD can cause a reduction of criminal behavior requires further research.

Although the effect was small, there were some favorable results on school and work attendance: 60% of the day treatment program group still attended school or work one year after completing treatment. During the years in which the study took place (2003 to 2006) the DTP offered only a partial program for school, lacked a focused program on peer influence, and lacked thorough aftercare aimed at preventing relapse. General crimes are more often committed under the pressure of peers, especially if the adolescents have no day-to-day structure and/or no daily work (Sherman, Gottfredson, Mackenzie, Eck, Reuter, & Bushway, 1998). This may explain why the DTP was less successful in reducing general crime recidivism. An intended future study will investigate whether improvements in the day treatment program lead to better results with general recidivism.

Potential effects

Another main target of the DTP is the assessment and treatment of psychiatric comorbidity. Percentages of psychiatric disorders (e.g. ADHD, internalizing disorders, psychosis, substance abuse) were found to be high in both the treatment group and the control group. Parent reports and adolescent self-reports showed a reduction of aggression, ADHD, and internalizing symptoms, indicating that the DTP is successful in addressing mental health problems. The question is how the reduction of symptomatology of mental health problems is related to preventing crime recidivism.

ADHD (together with DBD) and substance abuse in juvenile delinquents increase the risk of crime recidivism (Loeber et al., 1995). There is still a lot of uncertainty about the relationship of other psychiatric disorders to the increase of crime recidivism. Nevertheless, ameliorating psychiatric problems helps adolescents improve their psychological and social functioning, which is an important treatment target even if this does not result in reduction of crime recidivism. Since the majority of juvenile delinquents have been demonstrated to suffer from psychiatric comorbidity, assessment and treatment of these comorbid disorders has been recommended (Grisso & Schwartz, 2003; Doreleijers, 1995).

In conclusion, if juvenile delinquents suffer from psychiatric comorbidity, adequate psychiatric care should be offered (Inspectierapport, 1997). Further study is needed on the risk of psychiatric disorders other than ADHD and substance abuse disorders for crime recidivism.

Literature on effective treatment of behavior disorders in relation to the findings of the treatment outcome of the DTP

Most studies concerning treatment of behaviorally disordered adolescents underline the necessity of multilevel intervention treatment, often distinguishing society/community, family, and individual levels (Karnik and Steiner, 2007; Weisz, Jensen-Doss, & Hawley, 2006; Sukhodolsky & Ruchkin, 2006). Since juvenile delinquents are at high risk for psychiatric comorbidity, psychiatric assessment and treatment is often necessary (Doreleijers, Moser, Thijs, van Engeland, & Beyaert, 2000).

The DTP contains evidence based elements on the individual level, including psychiatric comorbidity, as well as on the family level. The outcomes are accordingly: diminishing aggression, ameliorating psychiatric comorbidity, and diminishing family conflict. On the family level, FFT focuses on lowering family conflict. This implies that a successful course of FFT enhances the opportunity of a family life together, increasing the chance of the juvenile staying at home (in his home environment) and participating in family life. This could be an explanation for the effects of day treatment concerning living at home. However, in this study it was not possible to determine the individual contribution of FFT to the total effect of day treatment.

The relatively small effect of the day treatment program in helping the juveniles to attend school or work, and the lack of results concerning the reduction of general recidivism show the need for more investment in the juvenile's social network.

Limitations of the study

- The study was designed and carried out by the same clinician who developed the day treatment program, which runs the risk of bias. This risk has been counteracted by relying only on outcome data that cannot be manipulated, such as official crime recidivism reports, days of stay within a juvenile justice facility, and reports by juvenile probation officers and/or parents on the living and work/school situation. At the same time, the researcher had only treated a small minority of the patients within the study, further reducing the risk of bias. Furthermore, treatment outcome has been reported by two independent sources: youth self-reports and parent reports, selected by independent researchers.
- This study applied a matched control design instead of a randomized controlled design, posing the question whether the groups were truly comparable. Within the Dutch legal context, this design provided the only way to study the treatment outcome of this group of juvenile delinquents, since judges independently decide on treatment for individual juvenile delinquents. After a match control procedure no differences were found between the two groups; therefore the experimental and control groups can be considered comparable. Studies comparing juvenile delinquents in plain detention to juveniles in (residential) treatment also proved these groups to be comparable. Since only a very small group of all possible candidates was designated for day treatment after imprisonment, the control group selected during detention on remand is an appropriate control group.
- Another limitation was the relatively small sample size of the study group (N=37). The study represents the first evaluation of a DTP for persistent juvenile offenders in the Netherlands. The DTP started with ten juveniles and continued with the inclusion of approximately ten juveniles a year. This experimental DTP was studied in order to gain support for day treatment as an alternative to the usual juvenile justice interventions. All juvenile delinquents sent to the DTP between 2003 and

2005 were included, which resulted in the inclusion of 37 subjects. Nevertheless, the outcome of this study is important, since to our knowledge, no day treatment evaluation studies of juvenile offenders committing severe violent crimes have ever been published.

- New development of evidence based treatment is needed to successfully prevent juveniles from embarking upon an adult criminal career. Because of the relatively small sample size, it was decided that the level of significance of $p < 0.10$ offered the best alternative. Accepting a level of significance at $p < .05$, would result in a high risk of making type II errors (Sacket, Haynes, Guyatt, & Tugwell, 1991). Replication of the study with larger sample sizes is needed to further elaborate on the effects of this study.
- The study on the effect of the DTP on the reduction of psychiatric symptoms and improving family functioning lacked a control group. In this study the control group, after leaving the detention center, was not available for the follow up of post treatment measurement of psychopathology.

Recommendations for the day treatment program

Improvements during the day treatment program (school, peer influence analysis), and after finishing the program (case management, booster sessions to help generalize learned skills, relapse prevention, and if necessary referral to extra social services) are aimed at raising school or work attendance and at reducing general crime recidivism. When juvenile delinquents succeed in attending school or work, an adult criminal career can most likely be prevented, even if they have a long history of antisocial behavior starting in early childhood (Roisman, Aguilar, & Egeland, 2004).

A multimodal day treatment program should target the following levels of interventions:

level	risk and protective factors	treatment mode
individual	**psychiatric comorbidity**	**assessment** **medication** **cognitive therapy**
	(lack of) social skills **aggression**	**social skills training and aggression management**
family	**(physical) conflicts** **communication and support** **problem solving** **parental skills**	**family therapy**
	school and work	**specialized school** **specialized job training**
	peers	**strengthening the social network en targeting prosocial peers**

Recommendations for further research

In this study a one year follow up was conducted. Since the strongest results were found regarding keeping the juvenile delinquents within the community and reducing violent and severe crime recidivism, the main question is whether this outcome can predict the prevention of an adult criminal career. A follow-up study of both groups after two and - even better - five years will be necessary to answer this question.

Since the sample size was relatively small, it was decided that juveniles enrolling in the program after closure of the current study would be followed for future study as well. The inclusion of these juveniles will provide a larger sample group, on which future studies can be based.

The benefits of a day treatment program for juvenile offenders committing severe and violent crimes

A family based multimodal day treatment program showed more promising outcomes than care as usual. To sum up:

- a higher percentage of remaining at home within the community
- fewer days of stay within a closed justice facility
- less severe and less violent crime recidivism
- reduction of aggression, family conflict, ADHD and internalizing disorders.

There were minor effects on school and work attendance and no differences in general recidivism between the DTP group and the control group. Offenders, especially if they commit severe violent crimes, end up in detention or compulsory residential treatment.

The disadvantages of these judicial measures have been described earlier: high recidivism rates, high costs, placement out of the community, abandonment by the family, problems in generalizing learned skills, resulting in the risk of an adult criminal career.

Through investment in the social network of the juvenile, the DTP intends to become more successful in helping adolescents maintain a useful day structure. The beneficial effect of keeping juveniles out of justice facilities will in the long term have a cumulative effect and possibly prevent an adult career in (violent) crime.

Societal implications

Another approach is needed for this group of offenders, who commit severe and violent crime. This study shows that a day treatment program may provide better outcomes for juvenile delinquents, family, and society than regular judicial interventions.

Within society there is nowadays a great deal of political pressure to incarcerate juvenile delinquents. Regarding persistent juvenile delinquents this will lead to long term detention or – if treatment is advised – compulsory residential treatment that will last for two to six years. However, these regular judicial interventions have not proven effective and they might even increase the risk of an adult criminal career.

Since the DTP shows promising results, future studies and implementation of the program in other regions are recommended. If this plan were applied in five regions in the Netherlands, day treatment would be available for about hundred juvenile delinquents at risk of being (re)incarcerated each year. Subsequently, a multicenter study with larger sample sizes would provide better opportunities to compile findings on the viability of the DTP. This could clarify whether this particular kind of DTP is indeed a (favorable) alternative to residential treatment for this group of persistent violent juvenile crime offenders. In the long term this could lead to reducing the need for detention centers. Breaking the cycle of criminal recidivism should in most cases not be a fight against crime, but a unified effort by family, forensic, and treatment professionals to integrate juveniles into their family and society.

SUMMARY

This thesis reports on a completed study on the effectiveness of a forensic mental health day treatment program for juvenile delinquents. The aim of this program was to improve psychosocial functioning of both the individual adolescent and his/her family, and at the same time reduce criminal recidivism, especially of violent crimes, and ameliorate psychiatric symptoms.

The study was initiated in 2003 when the first step was taken to set up an evidence based day treatment program, especially targeted towards ameliorating psychiatric symptoms (internalizing disorders, ADHD), building social skills, improving aggression management (reducing aggression), and improving family functioning (especially family conflict). The day treatment group was compared to a control group of juvenile delinquents included during detention on remand, who did not receive mental health services. Measurements were taken post treatment, and follow-up figures were gathered one year after the termination of treatment.

Patient sampling

All patients from the day treatment program are juvenile delinquents with conduct problems and psychiatric comorbidity referred to day treatment because of a combination of (repeated) severe violent crime and problems in psychosocial functioning in most areas: family, school/work, and peers. Patients referred to day treatment without a criminal history were excluded.

Chapter 2:

The Implementation and the Cultural Adjustment of Functional Family Therapy in a Dutch Psychiatric Day Treatment Center

(Journal of Marital and Family Therapy {2006}. 32, 515-529)

This review described the process of transforming a U.S. evidence-based family therapy (functional family therapy) into the service delivery system of a psychiatric day treatment center for juvenile delinquents in Amsterdam. The characteristics of functional family therapy that make it cross-culturally sensitive were discussed. Results from the changes in service delivery suggest functional family therapy could be successfully implemented in international settings with adjustments to make the

model fit the culture(s) of the Netherlands without changing the model of FFT itself.

Chapter 3:

The validity of self-report questionnaires of psychopathology and parent-child relationship quality in juvenile delinquents with psychiatric disorders

(Journal of Adolescence {2007}. 30, 761-771)

This study focused on the validity of self report questionnaires of psychopathology and parent-child relationship quality for juvenile delinquents with severe behavioral and psychiatric disorders by comparing information derived from the self-report questionnaires with information from other sources, including parent reports, in-depth interviewing, behavioral observation by clinicians, and official criminal records. The juvenile delinquents did not report increased levels of psychopathology or poor relationships with their parents, which is inconsistent with the fact that all juvenile delinquents were in day treatment for severe behavioral maladaptation and relationship problems. Moreover, parent ratings of psychopathology were consistently in the clinical range and relationship quality was evaluated as very poor by the parents ($d > .80$). We concluded that screening instruments for psychopathology and assessment of relationship quality relying on self-report questionnaires may not yield valid scores in this (extreme) population of juvenile delinquents

Chapter 4:

Early dropout in a day treatment program as a predictor of recidivism among juvenile delinquents

This study focused on early dropout in a day treatment program as a predictor of recidivism among juvenile delinquents, by comparing one-year recidivism of adolescents who completed the day treatment program, and adolescents who dropped out within three months after the start.

Our findings indicated that early dropout predicted more recidivism after one year than completion of the day program (57.1% in the dropout group compared to 25.6% in the group of completers); a larger number of crimes: (on average:1.21 vs. .44), more violent crimes (28.6% vs. 7.7%), and more severe crimes as measured

by a crime severity index (on average: 6.93 vs. 2.36). A remarkable finding was that pretreatment crime severity did not predict recidivism after treatment: dropout was far more important.

Chapter 5:

The effects of multimodal day treatment on aggression, psychopathology and family functioning of juvenile delinquents with psychiatric comorbidity

This study aimed to investigate whether forensic psychiatric day treatment is effective in reducing aggression, ADHD, and internalizing psychopathology, and whether it is able to improve family conflict management in juvenile delinquents with psychiatric comorbidity.

This was measured by youth self-report and parent report before and after treatment. Aggression and psychopathology were measured by the Youth Self Report (YSR)/Child Behavior Checklist (CBCL) and the Buss-Durkee Hostility Inventory (BDHI). Family functioning was measured by the Parent Child Interaction Questionnaire – Revised, and the Questionnaire Family Problems (QFP). Adolescents showed improvement on all relevant (sub)scales of the CBCL, YSR and BDHI, except on the BDHI scale Direct Aggression. In family functioning, only parents reported diminished family conflict on the Parent Child Interaction Questionnaire – Revised (PACHIQ) – Parent version conflict solving.

The findings indicated that a more severe criminal history predicts less family conflict after day treatment; psychiatric comorbidity predicts less improvement of aggression management and externalizing problems, and more family conflict; and psychopathy showed no effect on treatment outcome. It was concluded that day treatment can diminish psychopathology in juvenile delinquents with psychiatric comorbidity and lower family conflict.

Chapter 6:

Breaking the cycle: Preventing incarceration of juvenile delinquents through family focused day treatment

This study aimed to investigate whether a forensic psychiatric day treatment

program was more effective in keeping adolescents at home in the community, preventing re-placement in a correctional facility, reducing violent and general crime recidivism, and attending at school or work compared to care as usual after detention on remand. The sample consisted of juvenile delinquents in a day treatment program after incarceration and of juvenile delinquents followed up after detention on remand, without mental health services.

Adolescents within the day treatment program compared to the control group at twelve months of follow up had a favorable living situation (85% vs. 51%), stayed fewer days within a correctional facility (41 days vs. 116 days), committed 40-50% fewer violent crimes and crimes of less severity during twelve months of follow up and attended more at school and/or work at twelve months of follow up (60% vs. 41%).

General recidivism did not differ between the groups. Day treatment had the strongest effect on keeping adolescents within the community and preventing re-placement in a correctional facility. Smaller effects were in reducing violent and severe crime recidivism and attending at school or work.

Chapter 7:

General Discussion

The last chapter contained a critical review of the main findings of the day treatment program. Outcome showed the strongest effects in preventing incarceration and keeping the adolescent at home within the community. Less strong effects were reducing violent crimes and severity of crime compared to incarceration only. Staying at school and/or work was a hard goal to reach; even in the treatment group 40% did not succeed in staying at school and/or work a year after day treatment. There were no differences in general crime recidivism. After treatment the aggression and psychopathology of the adolescent was reduced and conflict management within the family improved.

The limitations of the study concerned the small sample size, the matched control design and the short follow up. Recommendations for clinical improvement were on generalizing learned individual and family skills and supporting a social network to

stay at school and work, leading to less risk of general recidivism. A societal need for improving aftercare after incarceration and combining punishment and evidence based care concluded the discussion.

SAMENVATTING

GEZINSGERICHTE DAGBEHANDELING KAN HERHAALDE OPNAMES IN GESLOTEN JUSTITIËLE JEUGDINRICHTINGEN VOORKOMEN

INLEIDING

Jeugddelinquentie is een omvangrijk maatschappelijk probleem geworden dat hoge prioriteit heeft gekregen op de politieke agenda. De laatste tien jaar zijn geweldsdelicten gepleegd door jongeren tot ruim 200% gestegen (WODC, 2007). Dit heeft geleid tot maatschappelijke en politieke druk om deze jongeren op te nemen in detentiecentra of hen langdurig residentiëel te behandelen, om zo de maatschappij tegen deze jongeren te beschermen en hen de kans te geven hun leven een posititeve wending te geven.

Desalniettemin toont evaluatieonderzoek aan dat zowel opsluiting, als gedwongen residentiële behandeling juist negatieve gevolgen hebben en gepaard gaan met hoge recidivecijfers (50-55% na twee jaar) (Wartna, Kalidien, Tollenaar, & Essers, 2006). Detentie heeft zelfs een recidivebevorderend effect: tot detentiestraffen veroordeelde jongeren eindigen later vaker in de gevangenis dan jeugdige delinquenten die voor dezelfde delicten veroordeeld zijn, maar niet gevangen gezet (Nieuwbeerta, Nagin, & Blokland, 2007). Ook na justitiële residentiële behandeling stoppen de meeste jeugdige delinquenten niet meteen met delicten (Wartna et al., 2006). Bij jeugdige delinquenten die frequent en/of ernstige delicten plegen, is gebleken dat het aantal psychiatrische stoornissen toeneemt ten opzichte van jongeren die minder ernstige delicten plegen (Doreleijers, Moser, Thijs, Engeland, & Beyaert, 2000). Ook internationaal onderzoek laat – zowel bij ambulante als gedetineerde jongeren veel psychiatrische stoornissen zien: ADHD en gedragsstoornissen, middelenmisbruik, en internaliserende stoornissen (Loeber, Burke, Lahey, Winters, & Zera, 2000). Met name ADHD is als risicofactor van grote invloed op toekomstig antisociaal gedrag (Taylor, Chadwick, Heptinstall, & Danckaerts, 1996; Loeber, Green, Keenan, & Lahey, 1995). Los van een eventueel verband tussen dergelijke stoornissen en antisociaal en delinquent gedrag houdt het voorkomen van deze stoornissen bij jeugdige delinquenten in dat voor een meerderheid van degenen die zich bevinden in justitiële instellingen, psychiatrische zorg nodig is gedurende hun verblijf. Deze zorg is echter vaak niet aanwezig of inadequaat (Grisso & Schwartz, 2003; Desai, Goulet, Robbins, Chapman, Mogdole, & Hoge, 2006).

Gezien deze nadelen van zowel opsluiting en de weinig doeltreffende residentiële behandeling is er een pleidooi gehouden voor betere nazorg (Algemene Rekenkamer, 2007), alternatieven voor de traditionele sancties, en voor meer zorg in plaats van alleen opsluiting. Echter, voor de categorie van recidiverende, ernstige en gewelddadige delinquenten, bleken deze programma's vaak te licht. De behoefte aan intensievere multimodale behandelingen werd onlangs nog eens bevestigd door evaluatie-onderzoek van alle programma's die in Amsterdam uitgevoerd worden (Nauta, 2008).

Aan alle genoemde bezwaren van bestaande interventies leek tegemoet gekomen te worden met een forensisch psychiatrisch dagbehandelingsprogramma als alternatief voor de justitiële jeugdinrichting en residentiële behandelingen. Dagbehandeling voor jeugdige delinquenten zou zich moeten richten op gedragsproblemen én psychopathologie van de jongeren en het gezin zou intensief bij de behandeling betrokken moeten worden. Focussen op motivatie zou drop out van deze jongeren uit het programma moeten helpen voorkomen (Kazdin & Withley, 2006; Kazdin, 1997). De hoogste prioriteit zou gegeven moeten worden aan het in de maatschappij houden van deze jongeren om in ieder geval geweldsrecidive te voorkomen (Sullivan, Veysey, Hamilton, & Grillo, 2007).

Dit onderzoek richt zich op de effectiviteit van een dergelijke gezinsgerichte multimodale behandeling voor jeugdige delinquenten die ernstige geweldsdelicten gepleegd hebben en daarvoor, voorafgaand aan de dagbehandeling, op last van de kinderrechter in een justitiële jeugdinrichting hebben verbleven. De uitkomsten van deze behandeling zijn vergeleken met een controlegroep van jeugdige delinquenten die de gebruikelijke justitiële interventies hebben ondergaan. Deze groep bestaat uit jongeren die na voorlopige hechtenis, ofwel (a) detentie opgelegd kregen en na ontslag uitsluitend begeleid werden door de jeugdreclassering, ofwel (b) langdurige residentiële behandeling opgelegd kregen. Van de jongeren van beide groepen is bekend dat zij te kampen hadden met vergelijkbare psychiatrische stoornissen. De jongeren van de dagbehandeling hadden ook grote problemen thuis en op school, maar deze gegevens waren niet bekend van de controlegroep.

De ontwikkeling van 'evidence based' dagbehandeling voor jeugdige delinquenten met psychiatrische stoornissen

De meeste onderzoeken met betrekking tot de behandeling van gedragsgestoorde jongeren onderstrepen het belang van een multimodale behandeling, meestal ingedeeld naar de verschillende leefniveau's: sociaal/gemeenschap, gezin, en individu (Karnik and Steiner, 2007). En inderdaad, evidence uit onderzoek met grote effectgroottes naar de behandeling van gedragsgestoorde jongeren, ondersteunt de toepassing van behandeling gericht op individueel niveau (probleemoplossen, cognitieve zelfinstructie/agressie-beheersing). Daarnaast is er veel bewijs voor behandelingen op gezinsniveau (bijvoorbeeld oudertraining, multisysteemtherapie [MST] en functionele gezinstherapie [FFT]) (Weisz, Jensen-Doss, & Hawley, 2006; Sukhodolsky & Ruchkin, 2006). Elk niveau richt zich op specifieke risico- en beschermende factoren, factoren die van doorslaggevend belang zijn voor het slagen van de behandeling van gedragsstoornissen.

In schema ziet een volledig multimodaal dagbehandelingsprogramma er als volgt uit:

	risico- en beschermende factoren	*evidence based* behandeling
individu	**psychiatrische comorbiditeit**	**medicatie** **psycho educatie** **cognitieve therapie**
	(gebrek aan) sociale vaardigheden **agressie**	**training sociale vaardigheden** **agressie-beheersing**
gezin	**(fysieke) conflicten** **communicatie en steun** **probleem oplossen** **opvoedingsvaardigheden**	**gezinstherapie**

Het dagbehandelingsprogramma dat in dit onderzoek werd bestudeerd (Slot, 1999; Bartels, Parker Brady & Doreleijers, 1999) kreeg gezinsgerichte accenten door invoering van functionele gezinstherapie (FFT) (Alexander & Sexton, 2002; Sexton & Alexander, 2003). De dagbehandeling ging zich daardoor zowel op het gezin als op het individu richten. Functionele Gezinstherapie werd de belangrijkste behandelfocus van de dagbehandeling in de eerste fase van die behandeling. In de tweede fase richt de dagbehandeling zich op het individuele niveau middels (a) training van sociale vaardigheden en agressiebeheersing en (b) diagnostiek en behandeling van psychische stoornissen (Breuk, Sexton, Van Dam, Disse, Doreleijers, Slot, & Rowlands, 2006). Aan het einde van dagbehandeling richt men zich met name op de terugkeer naar school en/of werk, en de vrijetijdsbesteding van de jongere. Alvorens verder te gaan, zal eerst een korte introductie van FFT gegeven worden.

FFT is een klinische interventie gericht op gezinsveranderingen bestaande uit drie van elkaar te onderscheiden behandelfasen. De specifieke doelen van deze interventie richten zich op risico- en beschermende factoren binnen het gezin. Zij doet dit door zich te richten op (gezins-)vaardigheden noodzakelijk om effectief te werken aan het verminderen van de gedragsproblemen van de jongeren. De eerste fase richt zich op het binden van jongeren en hun ouders aan de gezinsbehandeling. Tegelijkertijd worden alle gezinsleden gemotiveerd tot actieve medewerking aan veranderingen binnen het gezin. Het gaat daarbij om gezinnen, die gewoonlijk niet makkelijk tot therapie bereid zijn. De doelen van de middelste fase helpen alle gezinleden bij het aanleren van belangrijke gedragsvaardigheden, en in de laatste fase wordt ernaar gestreefd deze veranderingen te behouden en te generaliseren naar terreinen om het gezin heen zoals school en het sociaal netwerk om het gezin heen.

Effectonderzoek laat zien dat FFT effectief is in het bewerkstelligen van een recidivereductie tussen 26% en 73% bij jeugdige delinquenten die matige tot ernstige delicten gepleegd hebben, vergeleken met een gelijke groep die geen behandeling onderging of uitsluitend door de jeugdreclassering begeleid werd (Alexander & Sexton, 2002; Sexton & Alexander, 2003). Gedurende de tweede behandelfase van de dagbehandeling wordt er middels psychiatrische diagnostiek meer aandacht besteed aan de psychiatrische stoornissen en rekening gehouden met deze diagnose tijdens

de behandeling door alle teamleden. In de praktijk krijgt dit vorm in psychoeducatie van zowel jongere als ouders, het voorschrijven van en motiveren voor het gebruik van medicatie als dat noodzakelijk is (bijv. methylfenidaat bij ADHD), individuele cognitieve psychotherapie, en/of sociale vaardigheidstraining. Hoewel ernstige psychopathologie ook in de eerste fase behandeld wordt met bijvoorbeeld medicatie, is het specifieke van een gezinsgerichte behandeling dat de individuele behandeling gewoonlijk pas plaats vindt na de gezinsbehandeling, d.w.z. in de tweede fase van de dagbehandeling. Aangezien een belangrijk doel van de behandeling bestaat uit de vermindering van geweldsrecidive, krijgt agressiebeheersing tevens een centrale plaats, hetgeen zich in de praktijk vertaalt in het toepassen van cognitieve gedragstherapie, met sociale vaardigheden en agressiebeheersing (Kazdin, 1997; De Jonge, 1999; Muller & Colijn, 1999; Dodge, 1986). Na de afsluiting van diot onderzoek ontstond hieruit een groepstraining gericht op sociale vaardigheden, agressiebeheersing en moreel redeneren, gevormd volgens de principes van - de in de VS 'evidence based'- Washington State Aggression Replacement Training (ART) (Goldstein, Glick, & Gibbs 1998; Barnoski, 2004).

Het evaluatieonderzoek van het dagbehandelingsprogramma

Dit onderzoek heeft de effectiviteit onderzocht van een gezinsgericht multimodaal dagbehandelingsprogramma voor jeugdige delinquenten die (zware) geweldsdelicten hebben gepleegd en daarvoor gedetineerd zijn geweest voorafgaand aan de dagbehandeling (de behandelgroep). Deze dagbehandelingsgroep werd vergeleken met een controlegroep bestaande uit jongeren die na voorlopige hechtenis, ofwel (a) detentie opgelegd kregen en na ontslag uitsluitend begeleid waren door de jeugdreclassering, ofwel (b) langdurige residentiële behandeling opgelegd kregen. In dit onderzoek werd onderzocht of de doelen van de dagbehandeling voor jeugdige delinquenten behaald werden. De hoofddoelen van de dagbehandeling zijn:

1. vermindering van uithuisplaatsing incl. herhaalde detentie
2. vermindering van recidive van geweldsdelicten door verbeterde agressiebeheersing en vermindering van gezinsconflicten
3. vermindering van algemene delictrecidive

4. vermindering van psychiatrische symptomen, met name internaliserende stoornissen en ADHD
5. verbetering van sociaal functioneren, leidend tot het beter zich staande houden op school en/of in het werk

Follow-up vond plaats twaalf maanden na de dagbehandeling of voorlopige hechtenis. De volgende hypothesen werden gesteld:

Hypothese 1:

Na het beëindigen van het dagbehandelingsprogramma, verblijven bij twaalf maanden follow-up meer jeugdige delinquenten in de maatschappij, zoals bij hun ouders, familie, of op zichzelf, dan vergelijkbare jongeren die alleen voorlopige hechtenis opgelegd kregen.

Hypothese 2:

Na het beëindigen van het dagbehandelingsprogramma, verblijven bij twaalf maanden follow-up jeugdige delinquenten minder dagen in een justitiële jeugdinrichting dan vergelijkbare jongeren doen na alleen voorlopige hechtenis opgelegd te hebben gekregen.

Hypothese 3:

Na het beëindigen van het dagbehandelingsprogramma, plegen jeugdige delinquenten gedurende twaalf maanden follow-up minder geweldsdelicten dan vergelijkbare jongeren die na vrijlating uit detentie geen psychiatrische zorg ontvingen.

Hypothese 4:

Na het beëindigen van het dagbehandelingsprogramma plegen jeugdige delinquenten gedurende twaalf maanden follow-up minder 'algemene delicten' dan vergelijkbare jongeren die na vrijlating uit detentie geen psychiatrische zorg ontvingen.

Hypothese 5:

Na het beëindigen van het dagbehandelingsprogramma, hebben meer jeugdige delinquenten bij twaalf maanden follow-up school en/of werk dan vergelijkbare jongeren die na voorlopige hechtenis geen psychiatrische zorg ontvingen.

Aangezien de follow-up metingen van agressie, psychiatrische symptomen, en kwaliteit van gezinsfunctioneren alleen beschikbaar waren bij de dagbehandelingsgroep, konden hypotheses hieromtrent alleen bij de dagbehandelingsgroep getoetst worden. Dit leidde tot de volgende aanvullende hypotheses:

Hypothese 6:

Agressie, zoals gemeten middels zelfrapportage en rapportage door de ouders over agressie van hun kinderen, is na de behandeling significant verbeterd.

Hypothese 7:

ADHD en internaliserende symptomen, zoals gemeten middels zelfrapportage en rapportage door de ouders over hun kinderen, zijn na de behandeling significant verbeterd.

Hypothese 8:

Het gezinsfunctioneren verbetert, waarbij met name gezinsconflicten na dagbehandeling minder voorkomen.

RESULTATEN

Bij de beschrijving van de resultaten zal van de dagbehandelingsgroep niet alleen de resultaten gegeven worden van de gehele dagbehandelinggroep, maar tevens van jongeren die de dagbehandeling regulier afronden. Het betreft hier 28 van de 37 jongeren. Deze groep zal 'afronders' genoemd worden. Daar waar over effectgroottes gesproken wordt, worden deze gewoonlijk besproken als klein, matig of groot. De resultaten betreffende de eerste vijf hypotheses luidden als volgt.

- Jongeren verbleven één jaar na de dagbehandeling vaker in de maatschappij (ze wonen bijv. bij hun ouders, familie, of op zichzelf), vergeleken met de controlegroep. De percentages bedroegen resp. 85% en 51%, bij een matige effectgrootte. Anders geformuleerd, de dagbehandelingsgroep had een vijfvoudig grotere kans in de maatschappij te verblijven. Dezelfde uitkomst werd gedurende twaalf maanden follow up gevonden met betrekking tot het verblijf (aantal dagen) in een justitiële jeugdinrichting. Het gemiddelde verblijf bedroeg 41 dagen voor de dagbehandelingsgroep vergeleken met 116 dagen voor de controlegroep, en slechts 19 dagen

voor de jongeren die de dagbehandeling geheel afgerond hadden (hypotheses 1 en 2).
- Geweldsdelictrecidive kwam minder voor in de dagbehandelingsgroep, vergeleken met de controlegroep. De dagbehandelingsgroep als geheel kende gedurende 12 maanden follow up 40% minder geweldsdelicten, de groep 'afronders' 50% minder geweldsdelicten dan jongeren in de controlegroep. De effectgrootte was evenwel klein. Anders geformuleerd, de controlegroep heeft gedurende één jaar, twee keer zoveel kans op het plegen van een geweldsdelict. Ook de ernst van het delictrecidive van de dagbehandelingsgroep was minder dan die van de controlegroep. De effectgrootte was hier matig (hypothese 3).
- Er werden geen verschillen gevonden in algemene delictrecidive bij één jaar follow up tussen de dagbehandelingsgroep (39%; 'afronders' 35%), en de controle groep (50%) (hypothese 4).
- De dagbehandelingsgroep had bij één jaar follow up vaker werk en/of ging meer naar school vergeleken met de controlegroep. De effectgrootte is evenwel hier klein: ook in de dagbehandelingsgroep gaat na één jaar nog steeds 40% niet naar school noch heeft men werk (hypothese 5).

De resultaten van de laatste drie hypotheses (6, 7, 8) luidden als volgt:
- Agressieproblemen waren, zowel volgens de jongere zelf, als volgens de ouders verminderd. (hypothese 6).
- Internaliserende problemen en ADHD-symptomen waren, zowel volgens de jongere zelf als volgens de ouders, verminderd. (hypothese 7).
- Gezinsconflicten waren volgens de ouders verminderd. (hypothesis 8).

BETEKENIS VAN DE RESULTATEN

Een veelbelovende behandeling

Dit onderzoek richtte zich op vier verschillende uitkomsten van een dagbehandelingsprogramma voor jeugdige delinquenten na detentie, die vergeleken waren met jeugdige delinquenten die in voorlopige hechtenis hadden gezeten; deze controle-jongeren hadden óf erna alleen jeugdreclassering gekregen na vrijlating, óf een

langdurige residentiële behandeling. Het sterkste positieve effect van de dagbehandeling bleek de mogelijkheid om jongeren thuis en dus in de maatschappij te houden. Dit is een opmerkelijk resultaat omdat beide groepen voorafgaand in detentie verbleven en een vergelijkbare ernstige delictvoorgeschiedenis kenden, voorafgaand aan het onderzoek. Behalve dat minder dagen verblijf in gesloten justitiële jeugdinrichtingen met duidelijke kostenbesparingen gepaard gaan, levert het verblijf in de maatschappij, buiten de 'criminogene' jeugdinrichting, mogelijk een preventieve bijdrage aan het voorkomen van een criminele carrière als volwassene. Aangezien de onderzoeksgroep bestond uit eerder gedetineerde jeugdige delinquenten, van wie een meerderheid bij herhaling ernstige geweldsdelicten gepleegd had, is de vermindering van geweldsdelictrecidive met 40-50%, én het feit dat het recidive van juist ernstige delicten helpt terugdringen een belangrijk resultaat. Hoewel het effect betreffende geweldsdelictrecidive zeker betekenisvol is, moet in gedachten gehouden worden dat de onderzoekgroep klein is, significantie $p < .10$ en de effectgrootte klein tot matig.

Geen of minimale effecten

Het dagbehandelingsprogramma is niet op alle terreinen meer succesvol dan de controlegroep. Zo was de algemene delictrecidive niet verminderd in de onderzoeksgroep.

Waarschijnlijk is het dagbehandelingsprogramma succesvoller geweest bij de vermindering van geweldsdelicten (vergeleken met algemene delicten) door zich te richten op de vermindering van gezinsconflicten, en op individueel niveau, op de verbetering van agressiebeheersing en vermindering van psychiatrische comorbiditeit, waarbij vooral de vermindering van ADHD symptomen verantwoordelijk gehouden wordt voor het voorkomen van delictrecidive (Lodewijks, Doreleijers, de Ruiter, & Wit-Grouls, 2003).

Er zijn enige gunstige resultaten betreffende school en werk, maar de effectgrootte is klein, en 40% van de dagbehandelingsgroep heeft een jaar na afsluiten van de dagbehandeling geen school of werk. Algemene delicten worden vaak gepleegd onder druk van (criminele) leeftijdgenoten, vooral als deze jongeren geen dagstruc-

tuur hebben en geen werk om geld te verdienen (Sherman, Gottfredson, Mackenzie, Eck, Peuter, & Bushway, 1998). Dit kan verklaren waarom de dagbehandeling minder succesvol was bij het verminderen van algemene delictrecidive. In de jaren dat dit onderzoek verricht werd (2003-2005), was het schoolprogramma nog in opbouw, ontbeerde de dagbehandeling een programmaonderdeel gericht op (beperking van negatieve) invloed van vrienden, en was de nazorg nog weinig structureel. Verder onderzoek is noodzakelijk om vast te stellen of de intussen doorgevoerde verbeteringen zullen leiden tot betere resultaten met betrekking tot algemene delictrecidive.

Mogelijke effecten

Een ander belangrijk doel van de dagbehandeling is het diagnosticeren en behandelen van psychiatrische stoornissen. Percentages van ADHD, internaliserende stoornissen, psychose, en middelenmisbruik zijn hoog in zowel behandel-, als controlegroep. Ouderrapportages en zelfrapportages door de jongeren laten na de dagbehandeling een vermindering zien van agressie, ADHD, en internaliserende symptomen, hetgeen een indicatie is dat het dagbehandelingsprogramma slaagt in het behandelen van deze psychiatrische problemen. Het is echter de vraag of psychiatrische problemen gerelateerd zijn aan delictrecidive. ADHD en middelenmisbruik bevorderen delictrecidive bij jeugdige delinquenten (Loeber et al., 1995). Voor andere psychiatrische stoornissen is echter nog niet bewezen of deze gerelateerd zijn aan het bevorderen van delictrecidive. Desalniettemin verbetert behandeling van psychiatrische stoornissen het psychisch én sociaal functioneren van een groot aantal jongeren, zodat behandeling een belangrijk doel is ook als de delictrecidive daardoor niet zou verminderen. Aangezien er bij jeugdige delinquenten veelal sprake is van psychiatrische comorbiditeit, wordt het diagnosticeren en behandelen van deze stoornissen aanbevolen (Grisso & Schwartz, 2003) en mag het verminderen van delictrecidive niet het enige behandeldoel zijn.

Concluderend: als jeugdige delinquenten psychiatrische problemen hebben, moet hen adequate psychiatrische zorg aangeboden worden (Inspectierapport, 1997). Verder onderzoek is nodig om de specifieke risico's van delictrecidive voor andere psychiatrische stoornissen dan ADHD en middelenmisbruik te bepalen.

Beperkingen van het onderzoek

- Het onderzoek werd ontwikkeld en uitgevoerd door de clinicus die ook de dagbehandeling ontwikkelde, waardoor er een risico van bevooroordeling kan optreden. Dit risico op bias is tegengegaan door de uitkomsten te baseren op data die niet gemanipuleerd kunnen worden, zoals officiële recidivecijfers, het aantal dagen verblijf in een justitiële instelling, de rapportage van jeugdreclassering en/of ouders over de woon/verblijfsituatie en de school/werkinvulling van de jongere. Ook behandelde de onderzoeker zelf slechts een kleine minderheid van de patiënten. Tenslotte werden de behandeluitkomsten gebaseerd op twee bronnen: zelfrapportage door de jongere en ouderrapportage, die werden verzameld door onafhankelijke onderzoekers.
- Het onderzoek heeft geen gerandomiseerd onderzoekdesign gehanteerd, waardoor het de vraag is of beide groepen inderdaad goed vergelijkbaar zijn. Binnen de Nederlandse juridische context, was echter dit design de enige mogelijkheid om de effectiviteit van de behandeling te onderzoeken, aangezien de rechters onafhankelijk het beleid en de verwijzing bepalen voor individuele jongeren, zeker daar waar deze ernstige delicten gepleegd hebben. Na selectie bleek dat er geen verschillen waren vooraf tussen de behandelgroep en de controlegroep, zodat beide groepen als vergelijkbaar kunnen worden beschouwd. Onderzoeken die jeugdige delinquenten in detentie vergeleken met jongeren die residentiële behandeling kregen opgelegd, vonden geen verschillen betreffende delictzwaarte of psychiatrische stoornissen. Aangezien tevens slechts een kleine groep van alle mogelijke jeugdige gedetineerden kon worden geselecteerd voor de dagbehandeling na detentie, kan de controlegroep die geselecteerd werd tijdens voorlopige hechtenis als een adequate controlegroep beschouwd worden.
- Een andere beperking van het onderzoek is de relatief beperkte grootte van de groepen (N=37). Dit is echter het eerste onderzoek van een dagbehandelingsprogramma voor recidiverende jeugdige delinquenten. Er kon bij aanvang van het dagbehandelingsproject slechts een start met een capaciteit van tien jongeren per jaar gemaakt worden. Deze experimentele dagbehandeling werd onderzocht om - bij positieve uitkomsten - steun te geven aan vergelijkbare initiatieven als

alternatief voor traditionele justitiële interventies. Alle jeugdige delinquenten die instroomden binnen de dagbehandeling tussen 2003 en 2005 werden geïncludeerd, hetgeen resulteerde in de uiteindelijke onderzoeksgroep. De uitkomst van dit onderzoek is belangrijk omdat, naar ons weten, er geen dagbehandelings-effectonderzoeken zijn voor jeugdige delinquenten die herhaaldelijk geweldsdelicten plegen.

- De ontwikkeling van nieuwe behandelingen voor deze groep jongeren noodzakelijk, met als doel een criminele carrière als volwassene te voorkomen. Gezien de kleine grootte van de onderzoeksgroep, werd besloten dat een significantieniveau van $p < 0,1$ verdedigbaar, om zodoende de kans van type II fouten minder waarschijnlijk te maken (Sacket, Haynes, Guyatt, & Tugwell, 1991). Replicatie van het onderzoek met grotere groepen is noodzakelijk.
- Met betrekking tot de effectmeting van de dagbehandeling op de vermindering van psychiatrische symptomen, en de verbetering van het gezinsfunctioneren na de behandeling, ontbraken gegevens van de controlegroep. Bij follow-up was de controlegroep na detentie niet bereikbaar voor follow-up-metingen van psychopathologie.

Aanbevelingen voor het dagbehandelingsprogramma

Verbeteringen van het dagbehandelingsprogramma zullen zich vooral richten op het sociale netwerk gedurende de dagbehandeling (school, invloed van leeftijdgenoten), en na beëindiging van het behandelprogramma (middels case management, booster sessies die geleerde vaardigheden helpen generaliseren, terugvalpreventie, en verwijzing naar extra sociale hulpverlening waar nodig). Door deze verbeteringen wordt ernaar gestreefd de jongeren meer hun school en/of werk te laten behouden en hierdoor tevens het algemene delict recidivisme te verminderen. Immers als school en/of werk behouden kan worden, kunnen jongeren behoed worden voor een loopbaan als volwassen delinquent, zelfs als ze al een lange geschiedenis van antisociaal gedrag hebben vanaf hun vroege kindertijd (Roisman, Aguilar, & Egeland, 2004).

In schema moet een multimodaal dagbehandelingsprogramma er als volgt uit zien:

	risico- en beschermende factoren	*Evidence based* behandeling
individu	**psychiatrische comorbiditeit**	**medicatie** **psycho educatie** **cognitieve therapie**
	(gebrek aan) sociale vaardigheden **agressie**	**training sociale vaardigheden** **agressie-beheersing**
gezin	**(fysieke) conflicten** **communicatie en steun** **probleem oplossen** **opvoedingsvaardigheden**	**gezinstherapie**
sociale omgeving	**school en werk**	**gespecialiseerde school** **gespecialiseerde werktraining en stages**
	leeftijdgenoten	**versterken sociaal netwerk en richten op prosociale leeftijdgenoten**

Aanbevelingen voor verder onderzoek

In dit onderzoek werd de follow-up van één jaar onderzocht. Aangezien de sterkste resultaten werden gevonden betreffende het in de maatschappij houden van jeugdige delinquenten, en in het verminderen van gewelddadige en/of ernstige delinquentie, blijft het een belangrijke vraag of deze uitkomsten voorspellend zijn voor het voorkómen van een criminele loopbaan als volwassene. Het volgen van beide groepen na twee, of beter nog na vijf jaar, zal noodzakelijk zijn om deze vraag te beantwoorden.

Daarnaast wordt geadviseerd de omvang van de onderzoekgroep van de dagbehandeling te vergroten. Door de jeugdige delinquenten die de komende jaren naar de dagbehandeling verwezen zullen worden, toe te voegen aan de onderzoek, is het mogelijk elk jaar over het resultaat van de dagbehandeling aan de hand van grotere aantallen jongeren te rapporteren.

Dagbehandeling voor recidiverende geweldsdelinquente jongeren

Een gezinsgerichte dagbehandeling kon herhaalde opnames in gesloten justitiële jeugdinrichtingen voorkomen. Samenvattend waren de resultaten:

- hoger percentage verblijf in eigen huis
- minder dagen in een justitiële jeugdinrichting
- minder ernstige en minder geweldsdelicten.
- vermindering van agressie, gezinsconflicten, ADHD en internaliserende stoornissen.

Er werden geringe resultaten geboekt betreffende vasthouden aan school en werk en er was geen verschil tussen de behandelgroep en de controlegroep betreffende vermindering van algemene delicten.

Recidiverende delinquente jongeren, vooral als zij geweldsdelicten plegen, eindigen nu in de (volwassenen) gevangenis of in een gesloten residentiële behandelsetting resp. tbs-kliniek. De nadelen van deze justitiële interventies zijn enorm: hoge delictrecidive, enorm hoge kosten, verwijdering uit de maatschappij, afstand van gezin en familie, van werk en vrijetijdsomgeving, problemen met de generalisatie van geleerde vaardigheden, en tenslotte een risico op een loopbaan als volwassen crimineel.

Het dagbehandelingsprogramma is voor de reguliere justitiële interventies een

alternatief. Door verder te investeren in het sociale netwerk van de jeugdige kan het dagbehandelingsprogramma succesvoller worden bij het ondersteunen van de jongeren in het vasthouden van een zinvolle dagbesteding. Als jongeren beter in staat zijn school of werk vast te houden, zal hierdoor mogelijk ook het percentage algemene delictrecidive verminderen. Het positieve effect van jongeren uit justitiële instellingen houden, zal op de langere termijn toenemen en een criminele loopbaan als volwassene helpen voorkomen.

Maatschappelijke impact

Er is een andere benadering nodig om deze groep van recidiverende jeugdige delinquenten te bedienen. Dit onderzoek toont aan dat een dergelijk dagbehandelingsprogramma betere uitkomsten biedt voor jeugdige delinquenten, gezin én maatschappij dan de reguliere justitiële interventies. In de maatschappij is er nu een toenemende politieke druk om jeugdige delinquenten op te sluiten. Voor recidiverende jeugdige delinquenten zal dit echter op den duur leiden tot langdurige gevangenisstraf of – als behandeling wordt geadviseerd – gedwongen residentiële behandeling met de duur van twee tot zes jaar. De effectiviteit van deze interventies is onbewezen en er is een behoorlijk risico op het verhogen van de kans op een criminele loopbaan als volwassenen.

Aangezien het dagbehandelingsprogramma veelbelovende resultaten laat zien, kan beargumenteerd worden dat deze behandeling in meer regio's ter beschikking zou moeten komen. Stel dat dit dagbehandelingsprogramma in vijf regio's van Nederland beschikbaar gesteld zou worden, dan kunnen per jaar honderd jeugdige delinquenten met een hoog delictrecidive-risico worden behandeld. Tegelijkertijd kan een multicenter-onderzoek met grotere aantallen beter inzicht geven in de accumulerende effecten en effectiviteit van het dagbehandelingsprogramma. Hierdoor wordt duidelijk of de dagbehandeling een (gunstig) alternatief is voor deze groep van recidiverende, geweldsdelinquenten. Hierdoor zou de behoefte aan vergroting van jeugddetentie-capaciteit kunnen verminderen. Het doorbreken van de circel van delictrecidive zou in de meeste gevallen geen gevecht tegen criminaliteit moeten zijn, maar een gezamelijke inspanning van gezin, justitiële en behandelingsprofessionals om jongeren weer in hun gezin en in de maatschappij te laten integreren.

SAMENVATTING PER HOOFDSTUK

Aansluitend volgt nog een samenvatting van de engelstalige hoofdstukken, die niet in deze samenvatting beschreven zijn.

Hoofdstuk 2:

De implementatie en de culturele aanpassing van Functionele Gezinstherapie binnen een Nederlands dagbehandelingscentrum

(Journal of Marital and Family Therapy {2006}. 32, 4, pp. 515-529)

Deze review beschrijft het proces van overdracht van een Amerikaans evidence-based gezinstherapie (Functionele Gezinstherapie) naar een psychiatrisch dagbehandelingscentrum voor jeugdige delinquenten in Amsterdam. De eigenschappen van Functionele Gezinstherapie die deze therapie intercultureel sensitief maken worden besproken. De eerste resultaten van de implementatie van Functionele Gezinstherapie binnen het centrum wijzen erop dat het model met enkele aanpassingen succesvol in de Nederlandse cultuur geïmplementeerd kon worden, zonder fundamentele aanpassingen van het theoretische model van FFT zelf.

Hoofdstuk 3:

De validiteit van zelfrapportage van psychopathologie en de kwaliteit van ouder-kind relatie bij jeugdige delinquenten met psychiatrische stoornissen.

(Journal of Adolescence {2007}. 30, pp. 761-771)

Dit onderzoek richtte zich op de validiteit van zelfrapportage van psychopathologie, en de kwaliteit van de ouder-kind relatie bij jeugdige delinquenten met ernstige gedragsstoornissen en psychiatrische stoornissen, door informatie te vergelijken, verkregen door zelfrapportage middels vragenlijsten, met andere informatiebronnen, zoals ouderrapportage, interviews, gedragsobservatie door clinici, en officiële rapportages over criminaliteit.

De jeugdige delinquenten rapporteerden geen verhoogde niveau's van psychopathologie of verslechterde relaties met hun ouders, wat tegengesproken werd door het feit dat de jeugdige delinquenten in dagbehandeling waren voor gedragsproblemen

en relationele problemen. Bovendien bevond de ouderrapportage met betrekking tot de psychopathologie van hun kinderen zich steeds in de klinische range en werd de kwaliteit van de ouder-kind relatie door de ouders als slecht beoordeeld. Geconcludeerd werd dat screeningsinstrumenten voor psychopathologie, en de kwaliteit van onderlinge relaties die verkregen worden door zelfrapportage van de jongeren, geen valide scores opleveren bij deze (extreme) populatie van jeugdige delinquenten

Hoofdstuk 4:

Vroege uitval uit een dagbehandeling als een voorspeller van recidive van jeugdige delinquenten.

Dit onderzoek richtte zich op vroege uitval uit een dagbehandeling, als een voorspeller van recidive van jeugdige delinquenten, door de één jaar recidive van jongeren die de dagbehandeling afrondden te vergelijken met die van jongeren die binnen drie maanden na de start uitvielen. De bevindingen wezen erop dat vroege uitvallers, in vergelijking tot afronders van de dagbehandeling, binnen één jaar meer recidiveerden (57,1% vroege uitvallers, vergeleken met 25,6% van de afronders), meer delicten pleegden (gemiddeld 1,21 tegen 0,44), meer geweldsdelicten pleegden (28,6% tegen 7,7%), en zwaardere delicten pleegden gemeten middels een 'delictzwaarte index' (gemiddeld 6,93 tegen 2,36).

Een opmerkelijke bevinding was dat de criminele voorgeschiedenis niet voorspellend was voor recidive na de behandeling: drop out was een veel belangrijker voorspeller.

Hoofdstuk 5:

De effecten van een multimodale dagbehandeling op agressie, psychopathologie en gezinsfunctioneren bij jeugdige delinquenten met psychiatrische comorbiditeit.

Dit onderzoek onderzocht of een forensisch psychiatrische dagbehandeling effectief is in het verminderen van agressie, ADHD, en internaliserende psychopathologie, en of ze in staat is gezinsconflicten te verminderen bij jeugdige delinquenten met psychiatrische comorbiditeit. Dit werd gemeten door zelfrapportage door de jongere en ouderrapportage vóór, en na de behandeling. Agressie en psychopathologie werden

gemeten door de Youth Self Report (YSR)/Child Behavior Checklist (CBCL) en de Buss-Durkee Hostility Inventory (BDHI). Gezinsfunctioneren werd gemeten door de Ouder-Kind Interactie Vragenlijst Revised (OKIV-R) en de Vragenlijst Gezinsproblemen (VGP). Adolescenten verbeterden op alle relevante (sub)schalen van de CBCL, YSR en de BDHI, behalve op de BDHI directe agressie schaal. Betreffende gezinsfunctioneren rapporteerden alleen de ouders een vermindering van gezinsconflicten op de OKIV.

Bij nadere analyse van de resultaten bleek dat een meer ernstige criminele voorgeschiedenis van de jongere, na dagbehandeling een sterkere verbetering voorspelde betreffende minder gezinsconflicten; psychiatrische comorbiditeit voorspelde juist minder resultaat van de dagbehandeling: minder verbetering van agressie en gedragsproblemen, en meer blijvende gezinsconflicten. Psychopathie van de jongeren had geen voorspellend effect op de behandeluitkomst.

Geconcludeerd werd dat de dagbehandeling in staat was psychopathologie bij jeugdige delinquenten met psychiatrische comorbiditeit te verminderen en gezinsconflicten te beteugelen.

Hoofdstuk 6:

Doorbreek de vicieuze cirkel: het voorkomen van opnieuw opsluiten van jeugdige delinquenten door een gezinsgerichte dagbehandeling.

Dit onderzoek onderzocht of een forensische jeugdpsychiatrische dagbehandeling effectiever was dan een controlegroep van alleen gedetineerde jeugdige delinquenten betreffende: het jongeren thuis in de maatschappij houden, het voorkomen van herplaatsing in een jeugdgevangenis, het verminderen van gewelds- en algemene delicten, en het bezoeken van school/behouden van werk. De vergelijkingsgroepen bestonden uit een behandelgroep van jeugdige delinquenten die na hun detentie een dagbehandelingsprogramma doorliepen, en een controlegroep die gevormd werd tijdens voorlopige hechtenis in een justitiele jeugdinrichting en die daarna geen psychiatrische zorg ontvingen.

Adolescenten van de behandelgroep vergeleken met de controlegroep bij 12 maanden follow-up: woonden meer thuis of op zichzelf (85% vergeleken met 51%

van de controlegroep), verbleven minder dagen in een justitiële jeugdinrichting (41 dagen versus 116 dagen), pleegden 40-50% minder geweldsdelicten én pleegden minder ernstige delicten, en waren beter in staat op school te blijven en/of werk te behouden (60% versus 41%). Algemene delicten verschilden niet tussen beide groepen. De dagbehandeling had het sterkste effect als het ging om jongeren in de maatschappij te houden, en te voorkomen dat ze weer in een justitiële jeugdinrichting terecht zouden komen. Kleinere effecten werden gevonden in het beperken van ernstige en/of geweldsdelicten, en in het behouden van school en werk.

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DANKWOORD

"Jij reikt zo hoog als op de schouders van wie je staat", zei iemand mij eens. Met dit dankwoord wil ik verantwoording afleggen aan al diegenen die het mij mogelijk gemaakt hebben om deze evaluatiestudie van de jeugdforensische dagbehandeling tot een succes te maken.

Vanaf 2000 ben ik er werkzaam nadat ik was overgestapt van een kinderpsychiatrische kliniek van 'De Argonaut' naar het 'Paedologisch Instituut', en begon mijn werk in het jeugdforensisch veld in een dagbehandeling die bekend stond onder de naam 'De Derde Oever'.

Als clinicus en beginnend onderzoeker stond ik op twee schouders: die van collega onderzoekers die reeds veel ervaring hadden met praktijk-evaluatieonderzoek en die van een dagbehandelingsteam dat reeds bouwde aan een gezinsgerichte evidence based behandelprogramma.

Uiteraard berust evaluatie onderzoek op de dagelijkse inspanningen van de klinische praktijk. Daarom wil ik allereerst het dagbehandelingsteam bedanken dat hard heeft gewerkt aan het verbeteren van de kwaliteit van de behandelprogramma's. Aanvankelijk bestond dit uit het opzetten van een goed gestructureerde behandeling dat was gebaseerd op respect voor de jongeren. Het bestond verder uit het opzetten van een sociale vaardigheidstraining en agressieregulatietraining, het invoeren van mentorschappen, vaktherapieën en onderwijs, en – last but not least – een geïntegreerd psychiatrisch behandelplan.

Daarna werd de functionele gezinstherapie geïntroduceerd, en kon (met passen en meten) in de eerste fase van de dagbehandeling worden uitgevoerd. Hierdoor ontstond het unieke karakter van deze dagbehandeling: eerst het gezin motiveren en daarna de individuele jongere behandelen. Door deze gezinsbenadering werd de dagbehandeling een echt alternatief voor een residentiële behandeling en konden ook jongeren uit de meest belaste gezinnen geholpen worden zonder hen uit huis te plaatsen.

Het gehele team heeft bijgedragen aan het succes van de dagbehandeling. Enkele personen wil ik graag speciaal bedanken.

Eline van 't Veld, verleid om de overstap te maken van sociotherapeut naar coördinator en later naar teamhoofd, is niet alleen voortdurend steun en toeverlaat

geweest, maar was en is het menselijke gezicht van de dagbehandeling. Zij heeft voortdurend oog voor de individuele noden van klanten én medewerkers. Zonder haar was de dagbehandeling geen thuishaven geweest.

Bas Brown van psychotherapeut i.o. tot een kanjer van een individuele én gezinstherapeut en later tevens teamhoofd. Het was een feest hem op te leiden en te zien hoe geleidelijk de sturing van de dagbehandeling aan hem overgelaten kon worden.

Astrid van Dam, gezinstherapeut en daarna FFT-therapeut en supervisor. Gezamenlijk hebben we de functionele gezinstherapie geïntroduceerd. Eerst binnen de dagbehandeling, toen binnen de Bascule en later werd heel Nederland ons werkterrein. Dat deze dagbehandeling gezinsgericht geworden is, is vooral aan haar te danken.

En dan het onderzoeksteam, in chronologische volgorde van komen en gaan, bestaande uit: Elles ter Metz, Claudia Disse, Cassandra Clauser en Lotte Loef. Het introduceren van de vragenlijsten, er voor zorgen ze allemaal ingevuld terug te krijgen, het opzetten van een databank, en daarna de data-analyse en het meeschrijven aan de artikelen. Zonder jullie was het onderzoek zeker niet gelukt. Lotte Loef heeft een zo'n doorslaggevende rol gehad, met haar scherpe verstand, prettige humeur en enorme werklust, dat zij absoluut één van de paranimfen moest zijn. Het onderzoeksteam werd ondersteund door Pieter-Jelle Vuijk, psycholoog en statisticus.

Het onderzoek is mede mogelijk gemaakt door nauwe samenwerking met collegainstellingen: Het ministerie van Justitie verleende toegang tot het JDS en het TULP systeem. Het NIFP leverde cijfers op rapportages en PIJ'ers. De collega's van JJI's het JOC en het voormalige Nieuwe Lloyd waren uiterst behulpzaam bij het opsporen van de controlegroep en het JOC maakte een continuering van de dagbehandeling door nachtdetentie mogelijk. Jeugdreclasseerders en gezinsvoogden van BJAA en Bureau Jeugdzorg Noord Holland en de William Schrikkerstichting leverde ons de informatie over de jongeren.

Tenslotte leverde PIVU een start subsidie, zodat een pilot van het onderzoek mogelijk werd.

Maar een goede klinische praktijk, maakt nog geen onderzoek. In 2000 werden bij mijn aanname afspraken gemaakt met mijn promotoren (Theo Doreleijers en Wim Slot) en werd tevens een beleidingscommissie ingesteld met een drietal door de wol geverfde en buitengewoon kritische onderzoekers, die hun sporen hadden verdiend bij de praktijk-evaluatie: Joop Bosch, Jan Willem Veerman en Else de Haan.

Joop Bosch leerde ik kennen als gedragstherapie supervisor. Hij heeft mij gestimuleerd bij het schrijven van een eerste artikel over de FFT. Hij bleef de hele periode meelezen en denken en combineert een persoonlijke betrokkenheid, bescheidenheid en scherpzinnigheid.

Jan Willem Veerman, toen nog werkzaam bij PI Research, een enorme leermeester in de statistiek en in het helder en beknopt schrijven van artikelen.

Else de Haan kende ik reeds van de Argonaut. Zij is het levende bewijs, dat psychiaters wetenschappelijk nog veel te leren hebben als het om onderzoek gaat. Steunend in haar haarscherpe kritiek, die altijd snel en in detail geleverd werd.

Theo Doreleijers is mijn eerste promotor. Hij heeft mij geïntroduceerd in het forensische jeugdveld, waar hij een enorm netwerk tot zijn beschikking heeft. Hij heeft als geen ander een neus voor welke onderzoeksvragen zowel maatschappelijke relevantie hebben en als wetenschappelijk, publicabel zijn. Hij is open in het aangeven van zijn grenzen en in het hulptroepen halen op methodologisch gebied. Het inschatten van je eigen sterke en zwakke onderzoekscapaciteiten is een goede eigenschap en niet algemeen voorkomend in de wetenschappelijke wereld. Onverbiddelijk in zijn taalgevoel, ook op het moment dat deze promovendus bij de twintigste versie van een artikel juist zijn interesse aan het verliezen was. Theo, ik heb veel meer van je geleerd dan artikelen schrijven, ik verheug me op onze verdere samenwerking als forensisch jeugdpsychiater, als netwerker naar de ministeries, binnen de opleiding en als senior-onderzoeker.

Wim Slot is de tweede promotor. Ik leerde Wim kennen, toen het competentiemodel binnen de Argonaut getraind moest worden en ik PI Research vroeg dat te doen. Wim ik leerde van je door je heldere methodische denken en je gefocuste

schrijfstijl. Ik bewonder aan je, dat je altijd weer een artikel paraat hebt, dat net de discussie een nieuwe slag laat maken en de uitkomsten van een evaluatieonderzoek een breder perspectief geeft. Ook met jou hoop ik nog lang binnen en buiten de wetenschap samen te werken.

Tenslotte weet alleen Bob Newark echt hoe gebrekkig mijn Engels is, hij deed de Engelse redactie. Wietske Lute verzorgde de lay out van dit proefschrift.

Dan wil ik graag nog mensen noemen die geen directe betrokkenheid hadden bij het onderzoek, maar wel van belang zijn voor mijn ontwikkeling als clinicus, manager of onderzoeker.

Het cluster forensische jeugdpsychiatrie, medewerkers en leidinggevenden, hebben mij altijd gesteund bij het onderzoek. Erik Jongman, ontwikkelaar van het eerste uur, teamhoofd poli, wil ik apart noemen en danken voor het gemeenschappelijk optrekken en voeren van allerlei discussies over het vak en het ontwikkelen van FFT binnen de cluster. Ook aparte aandacht voor Mart Kok, begonnen als secretaresse, nu een duobaan als clustersecretaris en onbezoldigd filosofiestudent, meer dan steun en toeverlaat, want essentieel voor het management van de cluster.

Willem van Tilburg, intussen emeritus hoogleraar psychiatrie, leerde mij als opleider het vak psychiatrie in al zijn breedte, maar stimuleerde mij tevens wetenschappelijk onderzoek te doen. Dat leidde tot de publicatie van twee artikelen. Zijn vroeger in mij gestelde vertrouwen heeft geholpen onderzoek te starten en vol te houden..

Tom Sexton, we know each other since we met in 2002 in Las Vegas to get trained in FFT. You promised a long cooperation and this became true. Together we spread FFT all over the Netherlands, started the Knowledge Center FFT and you supported me to become a more experienced researcher. I enjoyed all our discussions and look forward to develop new family focused programs and do evalution research.

Last but not least, wil ik Harrie van Leeuwen en Paul Willems, Raad van Bestuur van de Bascule, bedanken voor hun vertrouwen in mij als clustermanager en het mogelijk maken van een sabbatical om dit proefschrift af te schrijven en dit proefschrift

te laten drukken. Jullie loyaliteit met mij en met mijn persoonlijke professionele ontwikkeling is in bestuurdersland een voorbeeld.

Onderzoek en hard werken is belangrijk en gewichtig, maar betekenisloos zonder goede vrienden, die je steunen en je met de beide voeten op de vloer houden.

Al gedurende de studie ontstonden twee groepen, die nog steeds bestaan uit goede vrienden. Het 'ko-schap-steungroepje' ontstaan na het ko-schap Interne komt nog steeds bij elkaar, voor gezelligheid en steun bij het vorm geven aan een professioneel én goed persoonlijk leven. Geregeld zie ik Jacqueline, Loek en Rien voor een goed gesprek bij een goed glas wijn.

Met twee andere heren (Albert en Maarten) en Rien komen wij nog steeds jaarlijks bij elkaar om een weekend nuttige, intieme gesprekken te combineren met onze bourgondische levensstijl: vrienden voor het leven.

Het is niet voor niks, dat Rien Van dit dankwoord doorleest, wij trokken samen op in een promotieavontuur.

Nol en Laura, oudste vrienden, dank voor jullie vriendschap!

Myra, jij bestudeerde en promoveerde over hoe dokters hun werk volhouden en combineren met hun persoonlijk leven. Het is fijn dat Marcella en ik je kennen.

Rob, is mijn tweede paranimf. We kunnen werkelijk over alles spreken en elkaar een spiegel voorhouden. Ik hoop dat we nog jaren bij elkaar terecht kunnen, vooral om een heel plezierige tijd met elkaar te hebben.

Tenslotte wil ik stilstaan bij mijn familie. Mijn ouders zijn beiden overleden, mijn vader al lange tijd geleden, mijn moeder begin dit jaar. Binnen onze familie waren wij de eersten die gingen studeren, dus had ik mijn ouders zeer gegund glunderend op de promotie te zitten. Mijn broers Bart en Paul zullen gelukkig wel aanwezig zijn.

De laatste woorden zijn om mijn lieve Marcella en mijn prachtige dochters Judith en Marit te bedanken voor het voortdurend wijzen op het geringe nut van te hard werken en ook nog zonodig te moeten promoveren. Dank zij jullie ben ik een mens gebleven en ben ik gedwongen om aandacht aan het echte leven te schenken en ben ik geen 'mannetje' geworden, die buiten zijn schoenen loopt. Ik hou van jullie.

CURRICULUM VITAE

René Egbert Breuk werd geboren op 5 juni 1958 in Amsterdam. Hij volgde het Gymnasium op de Berlagescholengemeenschap in Amsterdam. Hij studeerde één jaar Psychologie aan de Universiteit van Amsterdam en daarna Geneeskunde aan de Vrije Universiteit, Amsterdam. Hij behaalde het artsexamen in december 1985. Ter vervanging van de militaire dienst was hij te werk gesteld bij de Werkgroep Medische Ontwikkelingssamenwerking te Amsterdam. Aansluitend werkte hij als arts-assistent-niet-in-opleiding bij psychiatrisch ziekenhuis Sancta Maria te Noordwijk (begeleidend psychiater A. Voshart), de Centrale Riagg Dienst te Amsterdam (opleider R. A. Achilles) en bij de Joodse Ambulante Geestelijke Gezondheidszorg te Amsterdam (opleider Z. Sanders). Van 1991 tot 1994 volgde hij de opleiding tot psychiater bij PCA-Valeriuskliniek te Amsterdam (opleider prof. dr.W. van Tilburg) en aansluitend het keuzejaar en het aantekeningsjaar Kinder- en Jeugdpsychiatie (opleider prof. dr. W. B. Gunning), waarna hij in oktober 1995 kinder- en jeugdpsychiater werd. Hij is tevens opgeleid tot gedragstherapeut (VGCt) en tot kinder- en jeugdpsychotherapeut (VKJP) en voor beide verenigingen tevens supervisor.
Hij werkte vanaf 1995 tot 2000 bij respectievelijk AMC kinder- en jeugdpsychiatrie en bij ACKJ de Argonaut, beiden te Amsterdam, als hoofd van de kinderkliniek. Vanaf 2004 werkt hij als clustermanager van de cluster forensische jeugdpsychiatrie van de ACKJ Bascule te Amsterdam, vanaf 1 januari 2004 ontstaan als fusieorganisatie onder andere uit het Paedologisch Instituut te Duivendrecht, zijn werkgever tussen 2000 en 2004. Hij is daar tevens plaatsvervangend opleider (opleider prof. dr. Th. A. H. Doreleijers). Hij zette evaluatieonderzoek op binnen de cluster forensische jeugdpsychiatrie naar de effecten van de dagbehandeling, de polikliniek, functionele gezinstherapie en de toepassingen van gezinstherapie bij Marokkaanse gezinnen, daarbij begeleid door zijn huidige promotoren (prof. dr. Th. A. H. Doreleijers, prof. dr. N. W. Slot) en prof. T .L. Sexton, hoogleraar psychologie van de Indiana University uit Bloomington, Indiana, USA.. Zijn andere werkzaamheden als psychiater omvatten: directeur kenniscentrum functionele gezinstherapie, supervisor functionele gezinstherapie, projectleider schakelprogramma Marokkaanse jeugdige delinquenten en hun gezinnen, consulent jeugdreclassering BJAA en lesgevende activiteiten. Andere beroepsgerelateerde activiteit: Lid congrescommissie VKJP (2002- heden).

René Breuk is sinds 1980 samenwonend met Marcella Potthoff. Zij hebben twee dochters: Judith Elisabeth (1991) en Marit Johanna (1993).